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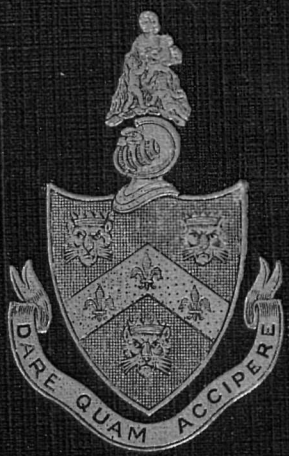

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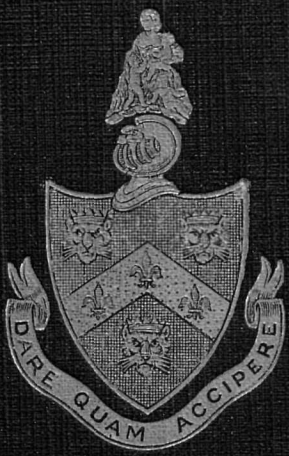

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"IN the Ortum of 18—," writes Artemus Ward, "my frend, the editor of the Baldinsville Bugle, was obleged to leave perfeshernal dooties & go & dig his taters, & he axed me to edit for him doorin his absence. Accordinly I ground up his Shears and commenced. It didn't take me a grate while to slash out copy enuff from the xchanges for one issoo, and I thawt I'd ride up to the next town on a little Jaunt, to rest my Branes which had bin severely rackt by my mental efforts. (This is sorter Ironical.)" A lucky fellow this editor, who without apparent difficulty found a substitute to "slash out copy enuff for one issoo" and even take time for a little jaunt into the bargain—and also, we might add, a wise man, whose guiding principle when perplexed by editorial difficulties was evidently "*cultiver son jardin.*" To this admirable maxim we shall strive to adhere, and putting resolutely aside the thought that everything is for the best in this best of all possible worlds, we shall continue in 1938 to use hoe and rake in an endeavour to keep neat and trim this allotment of ours at Guy's.

In our last issue we expressed our alarm lest this little plot should be entirely ploughed up, and we hoped that others would join us in expressing their opinions on the proposed scheme to demolish the existing entrance and Front Quadrangle and to replace it by a modern building. We are sorry to say that this hope has not been fulfilled, and we are in doubt whether to ascribe it to the native caution of our readers or to natural preoccupation with their own Christmas festivities, for we cannot believe that lack of interest can have been a restraining influence in this matter, which is their direct concern.

We do not propose to reiterate the arguments we advanced in the last issue in favour of retaining the existing Quadrangle, but we would broach the larger question as to the need of a long-term architectural policy for the Hospital. That such a policy has been lacking in the past is obvious to anyone who has taken the trouble to observe the existing Hospital buildings. These comprise a hotch-potch of different styles, each representing an idea which was fashionable at the time of building and has long since been discarded. Are we to look forward to a similar state of affairs in the future—each successive building, perhaps admirable in its own way, being flanked by another which is already out of date and inconsistent with it architecturally? Must we model our policy on that of London—a once beautiful city which is slowly being rendered chaotic by this habit of allowing the whim of the moment to be expressed to the exclusion of any homogeneity and pattern? That such a state of affairs is not necessary in a city can be appreciated by anyone who has visited Washington or Paris, where the evidence of consistency is everywhere perceptible, and where it has been found possible to follow a long-range policy in each case for over a century.

If such a policy is practicable for a city it is certainly so for an institution such as ours, the future of which is already determined and limited by its character and functions.

We would again urge upon those responsible the need of retaining where possible everything of beauty which remains to us in our buildings, with special reference to the Front Quadrangle, and we hope that it will be found possible to ensure not only that each new building as it arises is a fit and proper one, but that it should be in harmony architecturally with the whole.

We believe these questions to be of great importance to us all, and we would again express our hopes that now the Christmas season is over our readers may find the time to express themselves on the subject.

THE "Niggers" have once more had their day, and will sink (we hope) into oblivion again until next year when we may rest assured the old

discussion will once more be raised and will, after some heat and fraying of tempers, result in this "Bottle and Jug" party being kept intact for yet another year.

We congratulate the "Niggers" on the successful innovation of halving the numbers actually militant in any ward, and feel quite certain that, by this measure, they helped to make this year's entertainment a great improvement on previous occasions.

Now that Christmas is over the Residents' weary thoughts turn toward the Residents' Play, that admirable institution which gives members of Staff the unique opportunity of laughing at themselves and their housemen at the same moment. They are lucky this year in having retained the services of the authors of last year's play, Mr. S. H. Wass and Dr. N. M. Jacoby, and we look forward to another example of their wit this year.

Dr. P. M. F. Bishop has at last relinquished the immense burden of producing the play, and this will be done, most ably we are sure, by Mr. James Brown.

The play will take place on 7th to 11th February, inclusive. Letters must be addressed to the Treasurer, The College, Guy's Hospital, S.E.1. In no circumstances can personal applications, not in writing, be considered.

We would remind our readers that application for tickets should be made early to avoid disappointment, and that the last possible day for reception of applications is January 29th, 1938.

WE are pleased to congratulate the following Guy's nurses on their election to the General Nursing Council for England and Wales :—Miss E. E. P. MacManus, the Matron of Guy's ; Miss D. M. Smith, the Matron of the Middlesex Hospital, and Miss D. Lane, the Matron of the Hospital for Sick Children, Gt. Ormond Street. We would like especially to congratulate Miss MacManus on being at the top of the poll.

Extra-Sensory Perception

A Paper read before the Psychological Section of the Physical Society by M. Lubran, Esq.

MR. CHAIRMAN and GENTLEMEN,—In this paper I am going to tell you about a subject familiar to you all, but known to you by many different names. These names — thought - transference, mind - reading, "eyeless sight," clairvoyance, telepathy, cryptæsthesia—are all associated with some superstition or hypothesis attempting to explain certain alleged supernormal phenomena. In order to treat this subject scientifically, and to dissociate it from the mystic, the name Extra-Sensory Perception has been proposed by Rhine to cover all those cases in which a knowledge of objects or ideas is obtained by means other than the recognised sensory channels. I wish to make it clear from the start that there is no satisfactory evidence that extra-sensory perception is supernatural or occurs through the agency of ghosts, demons or disincarnate spirits. It is hoped that, being a new name, it will be free from the superstitions clinging to the older names.

Before one can determine what is extra-sensory perception, the limits of perception by the recognised sensory channels must be known, and it is remarkable how far these limits extend beyond the normal. Hyperæsthesia of every sense occurs. The best known, perhaps, is the hyperæsthesia of the sense of touch possessed especially, but by no means exclusively, by the blind. A blind osteopath declared recently, on oath, that he could identify a playing card by the feel of its surface, while the skill of Helen Keller is known to everyone. But the greatest exaltation of the sense of touch is to be found in the muscle-readers. These people, by holding someone's hand or arm, can detect the slightest movement, voluntary or involuntary, made by that person's muscles. By this means they can find hidden objects rapidly and easily, by leading the concealer round the room, because when they get near to the hidden object the involuntary movements increase. Some people who possess this power are unconscious of it, and attribute their success to telepathy or clairvoyance or whatever their particular belief happens to be, but they can easily be proved wrong, for, when blindfolded and isolated from the concealer, they always fail to find the hidden object. Muscle-reading accounts for the success of professional "thought-readers" such as Bishop and Cumberland, who flourished over fifty years ago. So sensitive are some of these people that they can derive indicia from any part of the person, contact not being necessary, the slightest movement of the hand or mouth or eyelid proving enough.

The most impressive of the hyperæsthesias is the hyperæsthesia of sight, possessed by very few people. Kuda Bux, who was in the news recently because of his demonstrations of fire-walking, earns his living by means of it. With his eyes heavily bandaged he can read books, play billiards, and even ride a bicycle and obey the traffic signals. Kuda Bux himself says he sees by means of Yoga ; M. Louis Farigoule thinks he can see

through his nose[1]; others think he does it by clairvoyance, but the only rational explanation is that he possesses, to a marked degree, visual hyperæsthesia.

The hyperæsthesia that is most often adduced to explain away the results of experiments on extra-sensory perception is auditory hyperæsthesia. This, coupled with unconscious whispering, has been the stock explanation given by the sceptics of the experiments in which Professor Gilbert Murray was the percipient. Describing the method used in these experiments, he says: "I go out of the room and, of course, out of earshot. Someone in the room, generally my eldest daughter, thinks of a scene or incident, or anything she likes, and says it aloud. It is written down and I am called. I come in, usually take my daughter's hand, and then, if I have any luck, describe in detail what she has thought of. The least disturbance of our customary method, change of time or place, presence of strangers, controversy and especially noise, is apt to make things go wrong. I become myself somewhat over-sensitive and irritable, though not, I believe, to a noticeable degree."[2] As a typical example of their results, the following may be quoted. His daughter was the agent. She chose as the subject "a scene in the Birth of a Nation, where a girl is running away from a negro—jumping over a rock." Professor Murray's reply was: "This is a thing you have never done before. It is a cinema. The girl running away from somebody and jumping over a rock. Oh, it's America. It's a negro chasing a white girl. It must be in the Birth of a Nation." In one series there were 236 experiments, in which 36 per cent. were successes, 23 per cent. partial successes, and 41 per cent. failures.[3]

One can explain this high proportion of successes on the assumption that Professor Murray possesses auditory hyperæsthesia and is thus able to hear any unconscious whispering that might occur. But this would not account for the peculiar process of reasoning used by him. It suggests that he gets a vague idea by some means or other and elaborates it out of his own wide knowledge. The subjects chosen were always something he knew a lot about. If the whole series of experiments is considered, two conclusions can be drawn: first, that the experiments show not extra-sensory perception, but the capabilities of normal sensory perception and, second, that the experiments give convincing proof of the existence of extra-sensory perception. It all depends on your bias which conclusion you choose.

The other possibilities that must be excluded before extra-sensory perception can be assumed are suggestion, including memory after the event, and coincidence or chance. These hypotheses are brought forward, again by sceptics, to explain that group of phenomena known as veridical hallucinations. A veridical or truth-telling hallucination differs from an ordinary hallucination in that it corresponds with an appropriate real event occurring to another person. Gurney, Podmore and Myers collected over two hundred well-authenticated cases. Altogether, more than two thousand cases are on record.

A typical example concerns Mr. S. and Mr. L., who worked in the same office and had been intimate friends for about eight years. On Monday, March 19th, 1883, Mr. L. complained of having suffered from indigestion, and on the following Saturday was absent from the office. Mr. S. found out afterwards that he had been seen by a doctor, who thought he wanted a few days' rest but did not think that his condition was serious. On Saturday evening Mr. S., who had a headache, was at home sitting on a couch at the shaded end of the room. He remarked to his wife that he felt rather too warm and leaned back on the couch, and the next minute saw Mr. L. standing before him, dressed as usual. The apparition looked fixedly at Mr. S., and then disappeared. Mr. S. then turned to his wife, who had been sewing and had seen nothing, and asked her the time. It was twelve minutes to nine. He then told her that L. was dead and that he had just seen him. She tried to persuade him that it was fancy, but he persisted that he was right. Next day, about 3 p.m., Mr. L.'s brother called and said that the evening before he had been to see his brother, whom he had found sitting up in his room. He stayed with him until 8.40 p.m., and then went down to the dining-room and stayed with his sister for about half an hour. As soon as he left his sister went upstairs and found L. lying dead on his bed. Death was from rupture of the aorta, and must therefore have occurred a few minutes before or after 9 p.m.[4]

Of course, it is not suggested for one minute that S. saw L.'s spirit or ghost. S., being an intimate friend of L., would probably know the nature of his disease, and certainly knew that he had recently been ill. Therefore he might reasonably have expected a sudden death. These factors, acting together with his emotional state, might have produced the hallucination. Nevertheless, there remains to be explained why he should have had the hallucination at that particular time.

I have chosen this example because here unconscious suggestion and pseudo-memory can be

excluded, as the hallucination was described before the actual death was known. There are many cases of this type.[5] The only other reasonable explanation, besides that of extra-sensory perception, is that the whole occurrence was a coincidence. Each case, considered separately, may be due to a coincidence, but, considered together, they suggest strongly the existence of an extra-sensory mode of perception, especially when it is known that out of 17,000 hallucinations recorded from all types of people, making amplest allowance for various sources of error, the proportion of veridical to meaningless hallucinations is 440 times greater than predicted from the laws of chance.[6]

Another group of experiments which eliminates all the alternatives to extra-sensory perception, except, perhaps, chance, was conducted by Miss Miles and Miss Ramsden nearly thirty years ago. Miss Miles was the agent and Miss Ramsden the percipient. The idea of the experiment was to determine whether " thought-transference " could occur over long distances. Accordingly Miss Miles noted at a pre-arranged time the idea or image she wished to convey, while Miss Ramsden, twenty miles away, wrote down the impressions that had come into her mind each day during that period, and sent her record to Miss Miles before she knew what had actually been attempted. The list of impressions and the idea to be conveyed were then compared by Miss Miles and the percipient was informed of the result. These results were very good. For example, on October 27th, 1905, Miss Miles wrote down the word " spectacles," having noticed a peculiar pair at a meeting she had attended that day. Miss Ramsden, on the same evening at 7 p.m., wrote : " Spectacles." This was the only idea that came after waiting a long time.[7]

It is possible that this was a coincidence. Usually the percipient has a large number of impressions of a vague sort, one of which may be made to correspond with the agent's ideas, so that a coincidence is likely. But the part chance plays can be estimated by comparing one day's impressions with the idea to be conveyed of the day before and the day after. The number of coincidences can then be determined. This check showed that the percentage of successes was significantly greater than chance would allow. To those who can appreciate figures only, experiments of this sort are of no value ; but the impartial mind can appreciate that, after all allowances have been made for hyperæsthesia, suggestion, deception and chance, there remains much that cannot be explained by any known mode of perception.

One of the early attempts to treat the subject statistically was made by S. G. Soal about six or seven years ago, with a large number of percipients. Only a few experiments were carried out with each, and, as would be expected from more recent knowledge, the results were negative. These experiments are interesting because the percipients were obtained through an appeal broadcast by Professor Julian Huxley for people who had had psychic experiences. 470 people took part in the experiments. Four professional mediums were written to, asking them to participate in the experiments. One pleaded lack of time, another that " her form of telepathy was from the spirit world " and she could not hope to succeed with any other sort ; the other two did not reply.[8]

The results were negative because the agents and percipients did not know each other and there was therefore no sympathy between them, and because not a sufficient number of trials was made with each percipient.

The most conclusive experiments, which I think establish beyond doubt the existence of extra-sensory perception, are those started by Dr. Rhine, of Duke University, North Carolina, in 1930, and which are still going on. He realised that earlier experimenters had failed to distinguish between telepathy and clairvoyance, and also that most of them had failed to control their experiments. For example, in experiments in which two people drew the same design, there was nothing to show that they had not both been impressed by the same pictures in a newspaper or on an advertisement hoarding. Or again, they did not exclude the influences of a common environment, or a similar upbringing or similar modes of thought of percipient and agent. To overcome these difficulties Dr. Rhine used a pack of twenty-five cards, not playing cards, but consisting of five sets of five different geometrical designs not easily confused. They were a circle, rectangle, cross, star and a pair of wavy lines.

His first series of experiments was designed to prove the existence of extra-sensory perception and to show that it had two phases, pure telepathy and pure clairvoyance. His other experiments were designed to determine the effects of various factors on extra-sensory perception. For the pure clairvoyance experiments the agent shuffled and cut a pack of these special cards and then drew off the top card of the pack and laid it face downwards on the table, without looking at it. The percipient sat in a comfortable position nearby and concentrated. If he wanted to he was allowed to pick up the card and look at the back, but never, of course, the other side. Usually he would

not glance at the card, but would sit with his eyes shut. He then called out what he thought the card was, and the agent wrote it down. The process was repeated for the whole pack. Results were checked in fives, *i.e.*, after every five calls, or more usually in twenty-fives, *i.e.*, after the whole pack had been gone through. Generally about 300 calls would be made at one sitting, but the record is 1,300 during the day. For the pure telepathy experiments, the agent thought of one of the five symbols in an order determined beforehand by chance and the percipient called out his impressions. These again were checked in fives or twenty-fives. A third type of experiment was carried out, in which the pack was placed on the table and the percipient called out the name of each of the twenty-five cards, the pack not being touched by anybody nor any card disturbed. In the ordinary experiments the cards were removed one by one; here, the percipient tried to read the whole pack without any cards being removed.

If only twenty-five calls are made, the expectation by the laws of chance is five correct with a probable error of 1.35. The more trials made the less does the probable error become and the nearer the result approximates to one-fifth of the number of trials. Thus, with a thousand trials, the probable error is 8.5, *i.e.*, 0.42 per 25. If D is the difference between the number actually recorded and the number calculated by the laws of chance, then the ratio of D to the probable error measures the anti-chance value of the experimental results, *i.e.*, the probability that the results can be explained by the laws of chance. This ratio will be called X. If X=1, the odds against a chance theory are even; if X=4, the odds rise to 142 to 1; if X=6, the odds are 20,000 to 1. If X=9, the odds are 100,000,000 to 1, while if X is greater than 9 the odds reach astronomical dimensions.

What results were obtained from such experiments? Eight major subjects were used as percipients, all being undergraduates or graduates of the University, chosen because they had had at some time a psychic experience, or because someone in their family had. They all gave good results, one of the outstanding subjects being H. E. Pearce, a Methodist minister.

When he first started, he scored only chance or a little above it, but after 100 trials he started to score higher until he reached a level of 9 or 10 correct in every 25 trials. This average has been maintained since for over 15,000 trials. These give a value for X of about 70, ruling out absolutely any possibility that the results are due to chance. It might be objected that he could recognise the cards after the pack had been gone through once, but this objection does not hold in view of the fact that when he got into his stride he did not look at the cards at all. Indeed, most of the time he kept his back to the observer and still scored 9 to 10 in 25 calls. In any case, the same pack was never used twice running, about a dozen actually being available for each experiment. Again, if it be objected that he might have remembered a particular run of the cards, it must be pointed out that the pack was shuffled and cut after every 25 calls, so that any sequence would be destroyed.

Similar results were obtained with experiments in pure telepathy, although at first the results were not above chance. It was found that all the percipients were, eventually, equally good at pure telepathy or pure clairvoyance.

Precautions were taken to exclude the possibilities of sensory hyperæsthesia. Involuntary whispering, which might be brought forward to explain the telepathy experiments, was excluded by the presence of an electric fan, the monotonous hum of which would effectively drown any slight whisper. Visual impressions were prevented by the presence of a screen between agent and percipient. With all these precautions a consistently high score was obtained. A professional magician tried the experiments under the same conditions as the percipients, but scored only chance expectations.

On one occasion Pearce had 25 straight hits under pure clairvoyance conditions, and another percipient had 25 straight hits in pure telepathy Other percipients scored 21 and 23 respectively in 25 trials. The odds against getting 25 straight hits by chance are nearly 300 quadrillions to 1. Surely to say that these results are due to chance is asking too much of one's faith. The final level of X, for the 90,000 trials, was 111.2, the odds against chance being incalculable.

It has always been the habit of certain people to explain away unpleasant truths. Can these results be explained away? Certainly not by any theory of chance, or by supposing the whole to be a glorious hoax, or the people concerned to be incompetent observers, misled by an unscrupulous few. Can they be due to unconscious sensory perception? I think this is adequately ruled out by the precautions taken, such as the electric fan and screening, and also by experiments in which agent and percipient were separated by distances varying from 12 feet to 250 miles.

In these experiments in pure telepathy the agent and percipient at first were separated only by one room when scores such as 19 in 25 were made. Later, at a distance of 30 feet, 125 calls gave an average of 17 per 25, making X about 20.

A further 250 trials were made with an average of 16 per 25. Results showed that more successes were obtained over the longer distances than the shorter, showing that telepathy does not obey the inverse square law, which radiations do. In July, 1933, a very long-distance experiment in pure telepathy was tried. Calls were made every five minutes, starting at a fixed standard time. The agent and percipient were 250 miles apart. The first score was 19 hits in 25, the second 16, the third 16. The remainder fell off and were 7, 7, 8, 6, 2. The average, however, of the 200 trials was 10.1 per 25, still much above the chance value. It is not surprising that the scores should fall off when it is realised that each set of 25 calls lasted two hours and five minutes, and three sets were made at a sitting.

Is it possible that the results are due to a process of rational inference? With a good memory it would be possible to guess successfully the remaining cards after the first few had been seen. Of course, no amount of logic would reveal the arrangement of a pack of cards shuffled and cut at random. If rational inference occurred one would expect the scores for the last five to be higher when the calls were checked by fives than when checked by twenty-fives, because he would know that twenty cards. Actually the scores are lower in the first case. In any case, only 2,850 of the 75,000 trials in pure clairvoyance, *i.e.*, 3.8 per cent., were run on the checking by fives system. Again, no amount of rational inference would explain the striking successes in the experiments in which the whole pack was run through by the percipient without a card being disturbed. Out of 8,075 trials made by Pearce, there were 3,049 hits, giving an average of 9.4 per 25 and a value for X of 59.3.

Having, then, eliminated all the possible hypotheses and having established that extra-sensory perception, in its two phases of clairvoyance and telepathy, does exist, some of its properties will be considered. First, not everybody possesses the faculty of extra-sensory perception. Many workers in the series of experiments just described have tried hard for many hundreds of trials without scoring appreciably above chance. Even the successful percipients are not consistent. Illness, fatigue, disturbance, changing of technique, even criticism, tend to lower the scores, although in most cases they still remain above chance. Professor Murray in his experiments noticed this as well. The presence of visitors has an inhibitory effect; the more sceptical the visitor the lower being the score. When the percipient becomes readjusted the scoring rises. The 250-mile long-distance experiment illustrates well the effect of fatigue, the scoring dropping from 19 per 25 to 2 per 25 over three periods of $6\frac{1}{4}$ hours.

Second, extra-sensory perception appears to be affected by drugs which act on the central nervous system. When sodium amytal was given to the percipients their rate of scoring dropped very much, the sleepier they got the lower being the score. When they tried to pull themselves together the scoring rose. Caffeine, given in the stage of low scoring, had a stimulatory effect, and in a short time they were wide awake and back again at their old scoring level, and, in some cases, even exceeding it.

Extra-sensory perception appears to be related to the central nervous system, because percipients can vary their scoring at will. For example, Pearce, in 275 trials, scored 1.8 per 25 after being asked to score low, and when asked to score high immediately after, scored 9 per 25. From these experiments and those of other investigators it is clear that extra-sensory perception is a function of the unconscious mind. Best results are obtained when the percipient does not attempt to reason what was thought of, but makes his mind a blank to receive any impressions that might occur. In the earlier experiments in thought-transference, very close agreement between agent and percipient was rarely obtained, because the percipient cloaked any impression she might have received with her own imaginations, the result being a much distorted image of what the agent had tried to convey. In Rhine's experiments only five known symbols were used, so that this factor of distortion was practically eliminated. This accounts, in a large part, for their success. Another point brought out by these experiments is that agent and percipient must be in sympathy with each other. Using the same percipient it was found that the best results were obtained when the agent was his fiancée. It was also found that percipients made the best agents.

There have been many hypotheses brought forward to explain the mechanism of extra-sensory perception, which shows, of course, that no one really knows what it is. Whatever form of energy is made use of, it is not a radiation like light or wireless, because it does not obey the inverse square law and become less powerful with increase of distance. But because extra-sensory perception cannot be explained by present-day physics, it does not follow that it cannot exist. When a new fact is observed there are two ways of dealing with it. It can be made to fit in with existing laws, or new laws can be made which embody this fact. It is irrational to say that the fact does not exist, or that it does so only in the minds of those who observed it. I think that extra-sensory perception

cannot be explained at present, not because it does not exist, except in the imagination of its adherents, but because we do not know enough about the mind. We must wait until the missing pieces of the puzzle are found and the whole put together.

Rhine has suggested[9] tentatively that extra-sensory perception can be explained on the hypothesis of the " relatively independent agency " of the mind under certain conditions of the material world. That is, the mind " goes out " to the objects perceived and does not wait for impressions to be registered in it. Distance has no effect because the actions of the mind are non-spatial. The agent helps actively by strengthening the impression through her own extra-sensory powers.

In this paper I have tried to show you that there exists a large body of evidence, to which one cannot justifiably shut one's eyes, that proves conclusively the existence of extra-sensory perception and reveals some of its properties. I hope that those sceptics among you who trust only that will-o'-the-wisp common sense, will become, if not converted to a belief in extra-sensory perception, at least more tolerant towards its investigators.

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The Niggers of 1937

ON Christmas Day the " Niggers " once again swayed and tumbled through their long hours of travail, bolstered by frequent recourse to an apparently unlimited supply of liquid refreshment.

The innovation of bisecting the party into Medical and Surgical units proved a great success, making them more wieldy both for the ward arrangements and for Massa Johnson, the master of ceremonies, ably carried out by Messrs. W. F. Dunham and A. J. Smith.

The weather was not encouraging, a thick blanket of fog overlay the Hospital, but was unable to douse the spirits of those who had to entertain, and entertain at all costs.

At 11 a.m. the fog was so thick as to make those strange figures, straggling across to be photographed, almost indiscernible, but not thick enough to prevent the ribald remarks hurled at the heads of senior members of our nursing staff from being appreciated by the hundreds who leant over the ward balconies.

After a chilly fifteen minutes of being focussed by a harassed photographer, the crowd broke loose and tore back to its dressing-room to swallow drugs best calculated by thirty medical men to ward off the effects of cold, and induce a feeling of well-being so essential to the proper execution of the task which faced them. This having been done, they emerged from the College again to start on a new profession—one which mercifully was only to last a few hours.

SURGICAL

Here the " Niggers" got off from a flying start and entered Martha in close formation headed by the big drum, the single stick being wielded by one who only a week or two previously had written condemning this instrument as being quite inhuman.

The entertainment there was good and gave the " Niggers " ample chance of learning lessons, not the least of which was that to place the drum on its side was a sound and simple method of preventing it from rolling off the stage and down the ward.

The House Surgeons arose here as five men and sheepishly regurgitated the words of their two songs, " Poor Little Angeline " and " I'm a little prairie flower."

The rendering of the following parody acted as a reminder to the nursing staff that their Christmas Day was to be one of long blushes and the prickings of an uneasy conscience.

She was just nineteen, little lamb so green ;
Always of the students she would dream.
As the men passed by
You could hear her sigh :
" Oh, won't you come and talk to me ? "
Oh, her eyes were bright
When she chanced to sight
Housemen flirting with the strings at night.
But her chance came soon,
When she met her doom,
Poor little lamb so green.

'Cos next night a clerk came a-striding,
And he pulled her to his side.
Very soon you could hear her a-pleading—
" I think I hear Sister's stride."

She was, oh, so true !
They were caught, those two,
In the middle of their *entre-nous*.
Even since that scare, she will take more care—
Poor little lamb so green.

Wisely giving no time for reflection on the purity of note in this song, they hurried on to " Little prairie flower."

My prowess is a thing
To which there seems no end ;
Last night I broke a normal limb
To see if it would mend.

Chorus— I'm a great big H.S. now,
Growing wiser hour by hour.
Nobody dares to contradict me,
'Cos I'm a big noise, as you see ;
I'm a big noise, as you see.

Here the absurd words and the elegant pirouetting of the actors were received clamorously, and the " Niggers " had started.

The Assistant House Surgeons now jumped crisply into " I lift up my finger," with its parody.

Some people full of pus come to Pat. and Sam. ;
Other people know of us and prefer to scram.
I don't mind whether they come or go,
'Cos later, if they come to me,
I shall not say " No."
I lift up my finger
And I say, " Cut cut, scrape scrape, drain drain, sew sew."
I don't need to worry when I say, " Cut cut, scrape scrape, drain drain, sew sew."
When the patient screams
And scatters his dreams,
Do I dope him more and more ?
No, I lift up my finger and say, " Cut cut, scrape scrape, drain drain, sew sew."

This was a roaring success, the crowd quickly realising that here were a quartet who could sing with gusto, give well-nigh perfect enunciation, and yet keep the tune intact—a rare feat, as most will agree.

Flushed with success, they ripped off an equally competent " Mighty tough in the West," with suitable parodies as follows :—

Though they're big, mighty big, in the breast,
The women patients they can always jest.
If by Nils they're treated
Their lumps can be repleated—

Oh, they're big, mighty big, in the breast.
Singing, " Oh ! you surgeons,
Won't you open me ?
Then we'll all live as long as the old oak tree."

Oh, they're thick, mighty thick, in the chest,
But boy Brock will be quicker than the rest ;
If their lumps are soft and rotten,
Very soon they'll be forgotten,
Where are they, why they're out of the chest.
Singing, etc.

Oh, they're weak, mighty weak, in the knee,
And unlike the others cannot jump with glee.
If they like to come to Massie,
He'll straighten out their chassis,
Then they're free to go out on the spree.
Singing, etc.

I understand that there was at this point an interval for refreshment before the whole party stormed Dorcas, where the Ear, Nose and Throat and Genito-Urinary House Surgeons, gorgeous bandits heavily sown with gold, sang " Public Sweetheart No. 1 " (for some reason without a parody) and " Oh, Donna Clara."

Being their first appearance there was a certain restraint noticeable in their first number, which was undoubtedly a difficult song even to as experienced a crooner as R. O. Yerbury. However, the haunting melody of " Donna Clara " appeared to melt their fears away, and we heard the following excellent parodies to that tune :—

Oh, G.U. Georgie,
For all my sins I have paid ;
With micturition there's a big delay.

Oh, G.U. Georgie, with all your bougies arrayed,
My fibrous stricture can you melt away ?

For with your knives and inunctions
The patient always recovers his functions.
It's very amazing ;
No operator is greater than you.

Oh, Lambrinudi,
That plaster's on far too tight,
The patient's foot will soon have sloughed away.

Oh, T. B. Layton,
With mirror shining so bright,
Your corporation quite takes my breath away.

Oh, Uncle Molly,
When ears are ailing at night,
You'll come and hammer half the head away.

For with your gouging and chiselling
You'll cure the patient of deafness and snivelling ;
And if they have tonsils,
I'll bet a fiver I know what you'll do.

All you big surgeons,
Although your work is all right,
I hope I never have to come your way.

In Dorcas the O.P.O.'s gave tongue and, fired by a long wait for their first appearance, and having had the undoubted advantage of an interval, polished off their two songs with an easy confidence which spoke of long hours at rehearsal and a determined onslaught on the refreshment. Their first song, " Around the Corner," suited the two costermongers, R. E. Edwards and W. W. Gilford, down to the ground, and provided one of the best parodies of the day :—

(*Tune—Around the Corner*)

He was a surgeon of high renown,
High renown, so handsome and tall ;
He was a slashing brute,
He was a slashing brute.
She was a Sister in cap and gown,
Cap and gown, the fairest of all.
She was so sweet and cute,
She was so sweet and cute.
He had a liver all crossed with scars,
His W.R.'s would have broken her heart.
He went to Dr. Gibb,
He went to Dr. Gibb ;
She had a terrible tale of woe,
Tale of woe, that she would impart.

Chorus—
Around the corner and out in the Park
They went a-strolling, when it was dark.
She said, " Nay, nay."
She said, " No, no."
But ever since she'd been there once
She always longed to go
Into her own room and once out of sight
Her gallant surgeon would hold her tight.
He kissed her once,
He kissed her twice,
But Matron caught them at it then,
And she agreed it's nice.

She couldn't stop him from holding her hand,
For his advances were hard to withstand.
He called her " Sis."
She called him " Surg."
And once again they conjured up that simply awful urge
To kiss and cuddle all over again,
Till it was questioned that they were sane.
But it was O.K. ;
The blighter had to pay,
For she was seen one day in Queen—a baby on the way.

Verse—
It was a dreadful blow to the staff,
Blow to the staff this horrible tale.
They couldn't stop the talk,
They couldn't stop the talk.
She was reduced to a pro. once more,
To a pro. once more—the lowest of all.
The talk got worse and worse,
It was a frightful curse.
He had remorse that came too late,
Came too late for heaven to wait.
The angel smote him down,
The angel smote him down,
And so he went to Dr. Gibb,
To Dr. Gibb as we did relate.

Chorus—
Beware ! you Housemen on rounds at night,
For she will get you, if you are tight.
Don't stay too long,
For fear of going wrong.
For evermore you will be damned in everybody's sight.
Around the corner and out in the dark.
Beware ! You nurses when out for a lark.
For you never know
How far he's going to go.
To every little babyface there comes more bite than bark !

This was followed by "Hometown," a tune known and appreciated by most of the patients, and one which continued to be a success in all wards where it was sung. The Palladium holds sway over many thousands.

The parody on this song in Dorcas appeared to drive its point home :—

Here they try to treat a running ear
All amongst that dreadful orthopædic gear.
This is Dorcas ;
How do they get results there ?
There's Lambrinudi.
Why, there's Mr. Stamm and Meyer, too,
Straining at the handle of the traction screw,
Regardless of the pain ;
They'll break the leg again.

Chorus—
Dorcas, where the Housemen are so lazy,
And the Surgeons, oh ! so crazy.
I long to get a bed to stay in just a week or two more.
Dorcas, where the Sister's so disarming,
And the nurses are so charming.
I'll try to get a bed to stay in just a week or two more.
There's a corner that I know,
Where they all sit down to sew,
In a sweet cherubic row.
With their dinky little minds removed from anything low.
Dorcas, where at night there is no scandal,
And it's safe without a candle.
I long to get a bed to stay in just a week or two more.

The party had now, I understand, another short interval for much needed refreshment, and launched its attack on Cornelius and Keats, where the House Surgeons and Assistant House Surgeons were billed to sing.

A keen observer would have noted here that the House Surgeons sang with more power and, indeed, showed an almost truculent front. They had clearly been told they had nothing to lose. The Assistant House Surgeons were received uproariously again, and then came that blessed interval for Christmas Dinner in the wards.

The interim in no way broke the spirit of the party, rather had they gained a post-prandial smugness which proved a finely-tempered armour against many a grim glance cast at Massa Johnson and his indelicate band.

Queen, Lydia, Job, Luke, Christopher and Naaman Wards were assailed and successfully conquered in succession, and in these it was noticeable that the same faces were seen again and again amongst the audience—followers gleefully awaiting the cause for another reproving glance

or another attack in parody. In Lydia they were not disappointed, for the O.P.O.'s produced something new :—

(*Tune—Hometown*)

Here the beds are full of colostomies,
Or perhaps of gastrojejunostomies.
This is Lydia.
Whatever else is done there,
It's simply frightful.
Tho' the ops. are just as bad in Queen,
There they do at least ensure the wounds are clean.
Though they discharge night and day,
For you can't wash that away.

Chorus—
Lydia, where the Sister's under forty,
And the nurses young and naughty.
You see the only reason why the Housemen come in at all.
Queen Ward, where the R.O.'s always fumbling,
And the bowels are always rumbling.
I can't see how they're ever going to cure a patient at all.
There are two beds near the door,
For the kidneys with a flaw,
And there's always Theatre 4,
Where I could cauterise a caruncle and look for more.
Patients ! Now this sorry tale is ended,
Be sure no harm has been intended.
We wish you all the best of everything that's going to-day.

At 3 p.m. Massa Johnson led the motley gathering into the yellow gloom of the Park and to Medical X-ray, where a joyous reunion took place between the two halves and parched throats were sluiced.

Then the combined " Niggers " entered the Out-Patient Hall, where, after a short struggle, the stage was taken and the children roared their delight for a full half-hour to tunes either very old or very new—tunes of a year or so ago were considered *démodés* and put down with a firm hand.

Once more there was a parting, the Surgical " Niggers " still in full force and hardly weakened made their way to Evelyn and then to Patience and Samaritan. In all these wards it was found necessary to allow all the performers to sing, so insistent was the demand.

The O.P.O.'s again brought out a new parody, which was howled at Sister Front Surgery with a wink and a weary smile.

Verse—
All day long we toil for mankind,
Examining the patients the disease to find.
In the Surgery—in Sister's Precious Surgery ;
It is her kingdom !
We will fill you up with drugs and pills,
To cure you of your aches and pains and divers ills.
Who are these brave heroes ?
Why, we are the O.P.O.'s !

Then came a command performance in Bright Annexe, which, unfortunately, has a slippery floor, but, despite this severe handicap, the prairie flowers managed to gyrate successfully and keep out of the fire.

MEDICAL

The Eye Wards were the first to claim the rather divided attentions of the Medical " Niggers." Here the Eye House Surgeon, the House Physicians to the Children's and Nerve Departments, and the R.O.'s sang " Hometown," which was highly successful here also, with, of course, a different parody.

(*Tune—Hometown*)

We all know a ward that's dark as night,
Full of men and women getting back their sight,
In the Eye Wards.
Why don't they pull them both down ?
They must be crazy.
Give the paralytics night and day,
Creepy, crawly feelings and rude things to say.
It's Dr. Barber's lair
If you've got no flaming hair.

Chorus—
Eye Wards. Want to rumple up your bedspreads,
See your tumbledown old bedsteads.
I love to walk in on those gorgeous buxom nurses of mine.
Eye Wards. Where there's always nothing doing,
But there's always trouble brewing.
I get a welcome from those beauties that are nurses of mine.
There are skittish little pros.,
And a staff nurse full of woes ;
Wish they'd show me what they're for.
If I could get them to myself I know they'd cry for more.
Eye Wards. Where all the treatment's shady,
And is Sister quite a lady ?
I shall come back to see those beauties that are nurses of mine.

As will be seen from this the nursing staff in Medical Wards received early indication that they were to be the butt, and were not to be let off lightly.

Here in Eye Wards the formation and control was excellent, the singing good, and the jokes so far in the best of taste.

The mob then moved to Addison, where the House Physicians and Assistant House Physicians took advantage of a temporary lull in their colleagues' conversation to sing " Mighty tough in the West," a fine full-throated interpretation with no diffidence and an admirable impartiality as regards choice of key. They justified the enormous applause and were clearly relieved when this, their début, was received so warmly.

You must be tough, mighty tough, if you're a nurse,
But it's frowned on if you swear or if you curse ;
If you read your daily paper,
You'd have been a cook or draper,
With a husband or sweetheart or worse,
With a husband or sweetheart or worse.
You would have a little money in your purse.
Ten things on your dressing table,
Rouge and powder, coats of sable,
But you can't have all those if you nurse.

As a Sister your life's not all jam ;
Housemen are so hard to please, I know I am.
First they say I must transfuse him,
Then they venesect and lose him ;
Till I wish those Housemen would scram,
How I wish those Housemen would scram !
With an S.R.N. or even a lamb.
But instead of singing ditties,
We'd be necking with our pretties ;
It's a shame but we can't bother—damn !

Mary, which was next on the list, was the scene of the other group of House Physicians' and Assistant House Physicians' first appearance, where they sang " Lazy Bones," and a special parody for Mary.

(*Tune—Eadie was a Lady*)

Mary has a sister,
Wotcha, hotcha, mister.
Whose kisses make you blister,
Wotcha, hotcha, mister.
She is as hot as a midsummer's day.

See her with a battered bedpan dawdling
When the urgent patient's shouting out ;
'Member how she used to lose the store keys
When the toilet rolls had run out ?

Sister's name is Daisy,
Hazy, lazy, dazy.
She almost drives me crazy,
Hazy, lazy, dazy.
Sister goes round in a junior pro. way.

Here Mr. Tony Box was prominent for scat-singing of the " wotcha-hotcha " lines, and began a day of step-dancing which was destined to continue until late evening, and which has brought him more than a little local fame.

Mr. W. E. Young acted brilliantly here also, although people marvelled that he was going to spend the remainder of the day being kicked in so brutal a manner. I understand, however, that at the end of the day he showed no bruises, and indeed felt better than when the show started —surely a testimony to the hardihood of our island race.

Then came the dinner interval, with everyone scattering to their respective wards in anticipation of solid refreshment at last.

With their numbers sadly reduced by one, the " Niggers " entered Bright, hoping against hope that Sister's comments in her little book would not be too scathing, and that even after this she would allow them to write up a few of their own drugs.

Rather tremulously the House Physicians and Assistant House Physicians concerned took up the tune of " Lazy Bones," and finished by singing a long parody as follows :—

(*Tune—Lazy Bones*)

Arthur Hurst, snooping in the sluice,
Wondering why the hell your bowel's so loose,
Looking for a good excuse.

Conybeare, shuffling through the ward,
Looking just a tiny wee bit bored,
Only just a trifle bored—
Only muttering, " Oh, my Gawd ! "

When tapeworms need slaying,
You bet we keep praying
That all goes according to plan.
If we keep urging with powerful purging
The head'll fall into the pan.

Lazy Docs. Loafing through the day.
How you spec' to cure a bloke that way ?
Never cure a bloke that way.
Waiting for another day.

Daddy P., trundling in and out,
Trailing lots of tin machines about,
Just like any roundabout—
Ordering just a good wash-out.

Doctor Grant always gives you hell,
Never thinks he's going to make you well ;
Not so soft as our Campbell,
Who looks at least a mighty swell.

Miriam Ward were the next to receive them, where even Sister could well remember it having been done before and where practically everyone was at last capable of distinguishing the Hospital chimney from almost anything. The House Physicians and Assistant House Physicians sang a roaring " Down on the Rio Grande."

Oh, say, were you ever in Addison Ward, say, my dearies ?
It's then that the nurses find life simply grand,
And their tummy for tea never wearies.
So away, boys, away, each home go,
To sleep in your beds without Haustus or Veg.
En sap—Paraffin—or Banjo.

The Housemen rush in and out again all for show.
They're looking for Sister, you mutts ; can't you see ?
They're like you, there's lots they don't know.
Doctors Marshall and Douthwaite
And Hampson and Mutch,
Aye and Bo.
You're safe in their hands ;
They don't trust you to us.
Oh, it's strange ; oh, it's sad ; but it's true.

The voices were now more resonant, the tunes more liquid, and indeed the entertainment of good all-round quality.

Victoria Ward, incidentally looking perfect with its bright colouring and tasteful decorations, received the swaying throng with open arms, to hear the specialists sing once more " Hometown," with an appropriate parody.

This is where we work from night till morn,
Pushing babies in and out and some get torn.
The pangs of chidbirth
They suffer madly, gladly
(They must be crazy).
Some are looking O.K., hale and hearty ;
Others wish they'd never been to that damned party.
But they all come back for more,
Forgetting they were sore.
'Toria.
This is where you come for baby.
Triplets, quins or quads—it's baby.
This is the ward where we play handies with the breeches unborn.
'Toria.
Where you have some hotcha nurses,
Just to stop the R.O.'s curses,
When he gets called up in the middle of the night to deal with
The hard pelvic floor of the old primipara,
And the stout Borough ma who can take a dozen pregnancies and come for more ;
'Toria.
Where at night it's dark and shady,
And our Eadie is no lady.
This is the ward where we play handies with the breeches unborn.

And then came the suffocating spectacle in Medical X-Ray, where physician met surgeon on equal terms and not a whisper was heard of transference of the undiagnosed.

Now they were in the Out-Patient Department, being sung to pitilessly by thousands of children who had not the least difficulty with tune, and who without a rehearsal knew every word. There must have been many a fitful dream of black ogres, handsome bandits and idiot sailors that night in the Borough.

Bright Annexe was reached by lift, and the poor sufferers in that ward were regaled with highly flavoured parodies and broad jokes. It was noticed here that only one of the Hunt and Poulton House Physicians and Assistant House Physicians was singing, the others cleverly mouthing and grimacing in a pantomime of song ; but the heat and excitement was responsible for this small final lapse.

Correspondence

Rugby

To the Editor of the GAZETTE

SIR,—Those of us who watched the 'Varsity match last Tuesday, particularly those who watched it from the enthusiast's and not the partisan point of view, must have learnt a great deal about the science and art of rugby football, and a great deal about our own weakness. We saw the apparently formidable Cambridge side suffer an almost ignominious defeat. And this despite the fact that the running and passing of the Cambridge centres was pure joy to watch. Oxford had nothing to offer by comparison to the running of the Cambridge midfield players, and yet they won by an absurdly large margin.

As I left the ground, sorrowing a little over the loss of 2*s*. 6*d*., I found myself making a comparison that was almost profane and yet most obviously true. The faults which cost Cambridge the coveted day were the very same faults which have cost Guy's twelve defeats this season.

Every one of the Oxford tries directly or indirectly resulted not from a clever combined movement, but from a quick pounce on a dropped pass, a swift unhesitating rush on a loose ball. It was the truly magnificent Oxford pack which won the day. Did you not notice, all you who pine for our departed glory, how the loose ball fell always into the hands of the dark blues or at their feet, or how every Oxford forward covered in defence, backed up in attack ; products of fitness, these two, but did you not notice also this far more important thing, and we can all do it—every dark-blue forward tackled hard, not gently; low, not high ! Now look at the Cambridge pack. You could see them thinking, hesitating. You can see Guy's thinking. They rarely covered in defence. Guy's never do. They backed up in two's ; Guy's back up in one's ; Oxford backed up in eight's.

A prejudice has grown up among Guy's forwards that it is not quite the thing for a forward to tackle. How often have I heard the proud half-joking cry of a forward, " You know I tackled low once this afternoon ! "

The comparison between Cambridge and Guy's is sacriligious since we are not quite in the same class, but there was a strange resemblance. Cambridge with their magnificent centre threes, Guy's with two very good ones. Cambridge backed up poorly by a slow-witted great-hearted pack, and so are Guy's. But it's all curable, at least the tackling is.

You may say I write all this with authority ;

I have no authority. I just learnt a very great deal from the last 'Varsity match and I long for the departed glory that was once ours, for the days when J. E. Geisen and P. Alexander made Guy's a name to be feared. What of their crash tackling —where is it now? For the days when every forward had a heart as stout as C. S. Darke, the cunning and intelligence of I. G. Robin. We have it all still, but it sleepeth and can be awakened. I despair nothing.

Yours, etc.,
NIL DESPERANDUM.

Guy's Hospital,
S.E.1.

Reviews

Diseases of the Ear, Throat and Nose. By J. D. McLAGGAN, F.R.C.S. Published by Messrs. H. K. Lewis & Co. *Price* 15*s.*

THIS volume is a valuable and welcome addition to the General Practice Series. It fills a gap in the literature about subjects that every " overworked general practitioner and harassed student " should know, but cannot find suitably portrayed. It is of small size, and yet the author has avoided the synopsis form, while covering all the essentials of the specialty in a most concise manner. The style of writing makes delightfully easy reading. The whole work has a practical point of view, and, while being necessarily dogmatic on many controversial matters, the advice given is balanced and sound, and is in accordance with general opinion. One example of this is the corroboration of Cheatle's view that sclerosed mastoids are congenital in origin, and the *propter hoc* of chronic suppuration.

The section on the acute inflammatory conditions of the middle ear cleft is very well done. Proper stress is laid on the importance of realising the different course and complications in cellular and sclerosed bones, and also on the essential need for better Eustachian drainage in all ear conditions. It might be thought that undue stress is made on the use of X-rays for diagnosis, but the author is careful to show that clinical observations must never be neglected and are of primary importance. The complications of aural sepsis are described in some detail, which contain many useful, simple tips and reminders, such as that of collecting the cerebro-spinal fluid from a lumbar puncture in a bottle with a screw cap, and not into a test tube with a cottonwool plug, which invariably manages to come in contact with the fluid. The elementary guidance about hearing tests is all that is required, and proper warning is given concerning the prescription of hearing aids.

A balanced view is taken of the function of the tonsils, and the indications for their removal. It is notable that the author removes these from children by dissection in every case; he rightly condemns the " snatching of tonsils and adenoids " with the aid of " whiffs " of anæsthesia, when the guillotine is used. The presence of infected nasal sinuses in children, and the association with enlarged adenoids and tonsils, is discussed at some length; the author belongs to the very large school of rhinologists which removes the hypertrophied lymphoid tissue of the nasopharynx at an early stage of nasopharyngeal infection.

The section on the larynx contains much useful advice on the diagnosis and treatment of all the important lesions. The paramount importance of making a general examination after viewing local lesions is stressed. A clear description of the operation and indications for tracheotomy is given; the small but practical point about the essential need for as early a removal of the tube as possible is not made, however.

It can be seen that the reviewer is quite enthusiastic about the book. Only one adverse criticism may be made, and that is probably due to a personal idiosyncrasy: the form of type and the kind of paper do not seem to be up to the standard of the other members of the series. Other criticism can only be constructive and not destructive, and consists in raising several minior points. The diagrams are barely adequate, but the majority are instructive; in one place it did seem that the pictorial aid to memory might achieve better results—in Fig. 44 a cerebral abscess is shown, presumably on the right side, whereas the text says, quite correctly, that it is " much more common " on the left. The technique of tonsillectomy under local anæsthesia is mentioned; the use of the Boyle-Davis gag method is not that practised by many surgeons. As might be expected of a surgeon belonging to the " London School," the advantages of local anæsthesia do not seen to have been mentioned sufficiently. Although the author rightly refuses to publish long lists of drugs, it is strange that a book produced in the latter part of 1937 contains no mention of the sulphonamide group of preparations, and their use in streptococcal infections in particular.

The proofs have been carefully revised, and only one misprint is to be noted (on page 28, Fig. 24 should read 25).

I. G. R.

Sport

Rugby

Guy's v. The Army

(At Honor Oak Park on Saturday, December 11th)

THE Army paid Guy's the compliment of fielding their first representative side of the season, and after one of the most exciting games seen at the ground for some time, the Hospital won a thrilling match by a placed goal and 2 tries (11 points) to 2 penalty goals and a try (9 points).

With Nicholson still busy with examinations, Guy's presevered with Sharpe as their hooker and brought in M. R. Kark in the front row and A. M. McCall in the back row of the pack, otherwise the side which did so well against Richmond was unchanged.

Owing to the call of county games, the Army were not quite at full strength, and notable absentees included Lieut. Marriott and Lieut. Leyland from the back division, and Lieut. Wallis from the pack; otherwise they were at full strength.

Guy's lost the toss and, facing a stiff cross-wind, were taken by surprise in the first five minutes when Brook followed up and touched down in the left-hand corner, but Melville failed with a difficult kick.

Within a few minutes the Army increased their lead when Melville kicked an easy penalty goal. Although Inglis arrived soon afterwards to complete the Army side, curiously enough the balance of play swung round in favour of the Hospital.

Gradually Guy's began to explore the weakness of the Army, and first Dick broke through, only to see his pass to McCall knocked-on, and then Kynaston and Dick cut through again and only a magnificent tackle by Hennell on Birks prevented a score.

During one of these attacks Guy's deserved to score when they were awarded a penalty in an easy position, but Kark just failed. Immediately afterwards the Hospital were given another penalty, but again they failed to take advantage of the opportunity.

Eventually the Army relieved the pressure, and they went further ahead when Guy's were penalised for a scrum infringement and Melville kicked another goal.

With such a commanding lead at half-time the Hospital supporters were very quiet and subdued, but when the second half opened they saw a totally different team facing the Army.

Right from the kick-off Guy's, with the wind in their favour, went all out and carrying all before them, Douglas looked a certain scorer when Hennell brought him down only inches from the line.

At this stage Guy's were full of confidence, and with Dick, Allen and Kynaston playing at the top of their form the Army appeared to be all at sea, with the result that they concentrated their efforts on defence, which proved fatal.

The Hospital forwards stormed their way into the Army's 25, and from a scrum the ball was sent out smartly by Eustace, and following a great run by Dick, Allen tricked two or three of the Army defenders and scored near the posts, but Dick failed with the kick.

Encouraged by the enthusiasm of their supporters, Guy's kept up the pressure and Crawford started a movement in which Dick completely baffled the defence by zig-zagging his way through by that delightful swerve and extra speed for which he is famous, and Kark kicked a magnificent goal from near the touch-line. With only a point separating the sides the game became very exciting, and from then onwards it reminded one of the Hospital Cup Ties. Guy's were irresistible, and when Allen broke away and made a great opening for Dick the Hospital supporters simply let themselves go when it was seen that Dick had registered another try giving the Hospital the lead.

Following this reverse the Army made desperate efforts to break through, but the defence put up by the Hospital was really magnificent, and in the last five minutes it looked as though the Army would save the game, but, in spite of good touch-finding by Hennell and Unwin and several scrummages in the Hospital 25, Guy's put up a splendid defence which held out until " no time " was called.

It was a glorious game, and Guy's fully deserved all the congratulations showered upon them after the match; the way they fought back after the interval reminded one of the years 1919-1923. There is plenty of good material at the Hospital and, provided the players keep fit and train, there is no necessity to worry about the future of Rugby at Guy's.

The introduction of Stanyon-Jacques and Kolesar to the back row of the forwards has had a stimulating effect, and with Eustace gradually acclimatising

himself to first-class Rugby, the Hospital are rapidly shaping into a fine combination.

When the second half of the season begins, there will be a big improvement, and there is no doubt that the Hospital Rugby XV will surprise even the stoutest of their supporters.

Team.—J. P. Crawford; D. M. Douglas, R. U. F. Kynaston, R. C. S. Dick, P. H. Birks; R. D. Allen, T. H. Eustace; M. R. Kark, R. M. Sharpe, H. H. Crabb, J. R. D. Williams, A. Forbes, A. M. McCall, K. A. Stanyon-Jacques, P. D'O. Kolesar.

Hospital Information, etc.

Notice

The Wills Library inform us that Vol. XX, 1859, and Vol. XXV, 1864, are missing from the Library, and that the Committee would be grateful if these could be obtained in order to complete the set.

Pass List

ROYAL COLLEGE OF SURGEONS.

L.D.S.

FINAL EXAMINATION.

November, 1937

PART I.

Surgery.

R. A. Abbey
M. Abd el Hamid
R. G. Bird
S. E. Burt
P. A. Chandler
E. J. A. Clarkson
G. F. Daws
H. D. Freeman
J. H. French
D. C. Jackson
J. R. Kempe-Roberts
R. L. Kenyon
R. D. Ogston
W. S. Palin
R. C. Price
B. T. C. Probert
A. Rand
D. J. R. Shannon
C. E. Sharland
W. B. B. Southwell
P. D. Spooner
G. C. Sprigings
D. D. Stalford
E. D. Stanhope
K. A. Stanyon-Jacques
G. P. L. Taylor
W. L. Trick
F. G. Triay

PART II.

Dental Surgery.

W. Abd el Hamid
H. Bridgeman-Williams
W. B. J. Baskin
W. R. C. Brown
D. W. Bugg
S. E. Burt
P. Ellis
S. Farro
D. R. Finch
R. L. Greenfield
G. N. Hall-Jones
R. L. Kenyon
B. Leton
R. W. Marston
A. Rand
K. A. Stanyon-Jacques
W. L. Trick
A. R. Wheatley
G. L. M. Williams
E. W. Wright

UNIVERSITY OF OXFORD.

D.M.

H. J. B. Atkins
E. H. Koerner
J. K. Marshall

SOCIETY OF APOTHECARIES OF LONDON.

FINAL EXAMINATION.

December, 1937.

Surgery.

J. D. B. Perkins.

Medicine.

*D. C. Light.

Forensic Medicine.

*D. C. Light.

*Has now completed the Examination.

UNIVERSITY OF CAMBRIDGE.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

Michaelmas Term, 1937.

PART I.

Surgery, Midwifery and Gynæcology.

H. Stott.

PART II.

Principles and Practice of Physic, Pathology and Pharmacology.

T. L. Barbour
A. S. Bookless
A. W. Box

Papers by Guy's Men

J. B. Parfitt. Presidential Address. *Brit. Dent. Jour.*, 1937, lxiii, 685.

Changes of Address

John Maurice Lea, The Cottage, Lifton, Devon.

J. F. Lockwood, 19, Park Crescent, W.1.

Births

CAMPBELL.—On December 1st, 1937, to Mary, wife of Dr. Maurice Campbell—a son.

STEWARD.—On December 9th, 1937, at Nuffield House, to Margaret (née Reading), wife of Dr. Graham Steward, of Berriffs, Tadworth, Surrey—a son.

Death

REYNOLDS.—On December 21st, 1937, at West London Hospital, Leonard Grugeon Reynolds, M.R.C.S., L.R.C.P. (Lond.), of Avonmore Road, W.14. Aged 65 years.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

IN times of national emergency, when the fate of empires hangs precariously on a thread and when the whole course of the world's events turns on the next pronouncement from Downing Street, one is certain to hear one's next-door neighbour in the railway carriage or bus announcing that " England will muddle through somehow." This serene confidence of the average Englishman in what would seem to be a singularly unreliable policy has been justified historically on many occasions by its happy results, and indeed to our less fortunate neighbours in Europe who have to trust to ratiocination in the conduct of their affairs our methods have always seemed to possess a magical quality which could be explained by them only by imputing to us a Machiavelian cunning of the most crafty and subtle kind. Whether this sinister interpretation is a correct one or whether we have contrived to emerge unscathed from crises by happy and fortuitous sets of circumstances no one has ever been able to say, or indeed ever will be able to until the day, predicted for us by solicitous friends and potential enemies alike, when, according to both, we shall come " an almighty cropper."

If " muddlin' along " has been our theme song in international affairs, how much more so has it been in the domestic problems of our country? And it is in relation to the handling of the Voluntary Hospitals that we would particularly consider whether a continued rendering of this Theme and Variations is to be tolerated.

We have in England perhaps the finest chain of privately operated hospitals existing anywhere, and their existence has been made possible by centuries of personal endeavour and of magnificent public charity. With each hospital has come into being a splendid tradition of teaching and service which each successive generation has striven to perpetuate and to pass on to ensuing generations. The system has had disadvantages, one of which has been a tendency for each hospital to be a self-sufficient unit and slow to co-operate with others toward the advancement of medicine, but on the whole the few drawbacks have been overwhelmingly compensated for by the numerous gains achieved. All this has been made possible by the constant stream of charity which has been forthcoming from the public, and the continuance of such a system is dependent upon a yearly repetition of an enormous volume of donations; and even this is not sufficient, for while the public's income does not expand every year, and may even fall when times are hard, the financial needs of the hospitals concerned increase and multiply as a higher standard of treatment is constantly being attained.

It would be hazardous to predict that this increased outlay will be met out of charitable sources, and there is every likelihood, therefore, that in the very near future the Voluntary Hospitals will find themselves without the necessary resources to continue their work. Such a situation has, indeed, arisen in many cases, and has been met only by the acquisition of enormous overdrafts, which have enabled them to keep their doors open; anyhow for the time being.

One is forced, therefore, to an inevitable conclusion. Either the Voluntary Hospitals will have to restrict their activities, close up many wards, and reduce their standard of treatment, or they will have to ask for municipal or State aid and accept whatever disadvantages this step may carry with it. The former alternative is, we believe, unthinkable, and we are therefore driven to accept the latter, unpalatable as it may be to many, for it implies that sooner or later the

Voluntary Hospitals will be nationalised, or anyhow municipalised.

There is no half-way house, we believe, between the present position, where we are entirely dependent upon voluntary contributions, and that where we would be wholly subsidised, for once State or municipal aid is granted the contributions must inevitably fall off, since donors will naturally fail to provide money which they must know will be forthcoming from other sources if their charity ceases.

We conclude, therefore, that before many years have elapsed the old Voluntary Hospitals of England will have disappeared, to be replaced by nationalised institutions, and we claim that this forecast could have been made with certainty any time in the last twenty years. Faithful, however, to the policy of *muddling along*, successive generations have emulated the ostrich and failed to face the issue which has been staring them in the face.

What, then, does one see if one chooses to look? Many have it that nationalisation is a calamity so great that any expediency is warranted to avoid it. They claim that one would become a cog in a great machine and the Hospital a soulless institution without character or traditions. Others, on the contrary, argue that while losing on the one hand, one would gain in efficiency and co-operation on the other. One thing is certain—that the Voluntary Hospitals have it largely in their own hands to say what type of nationalisation should take place. If they joined forces now and worked out their own destiny they could present a scheme to Parliament which would have a reasonable chance of acceptance and would enable them to retain to a large extent their own identity. If, however, each hospital waits until it is virtually bankrupt, it will have no bargaining power and may expect to be absorbed into a municipal machine such as the London County Council, and this fate we do not contemplate with equanimity.

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THIS week we publish several letters from correspondents on the subject of the proposed demolition of the Surgical Block and Front Quadrangle. They all appear to share our anxiety lest a precipitate and irrevocable step should be taken without having first of all exhausted all other possibilities. We wish we could give Messrs. Clarkson and Partridge the assurance they ask for. Unfortunately, the question is still *sub judice*, and no information has reached us which would eanble us to throw fresh light on the matter.

In the meantime we would say that while we do not continue to reiterate arguments in favour of the retention of the Quadrangle, our interest in the question remains unabated; we shall continue to welcome all expressions of opinion from our readers on the subject, and hope that we shall soon be in a position to publish some official pronouncement which will throw further light on what must remain for us all a matter of supreme interest.

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WE had hoped that the New Year might bring in with it a more peaceable state of affairs in international relationships, but now 1938 is with us and we seek vainly for any amelioration in the present unsettled state of Europe. It is true that the civil war in Spain no longer holds our attention as it did, but the gloomy reason for that is the overshadowing enormity of another and more disturbing uproar in the Far East. If we dared we would undoubtedly shut our eyes to this latest tragedy, but we must see with all too clear a vision that the present shambles of bloodshed in China carries a menacing message to this country—a message that cannot be overlooked. The situation is evidently a matter of the greatest import to all of us.

When we heard that one from our midst was travelling to China, it was with this thought in our minds that we asked him to send, as regularly as possible, dispatches describing his experiences for us and telling us something of the war as it appears to him. Mr. Donald Hankey set out some weeks ago with our blessing and our address to the fighting area for the unselfish task of tending to the needs of sufferers wounded in this unfortunate war. He will therefore have an opportunity of observing directly the effects of war not only on a community generally, but the effects on individuals making up that community.

We perhaps hold a keener interest in the medical and surgical aspects, and it is on these that Mr. Hankey will concentrate chiefly in a country where the ravages of diseases unknown to us add to the misery caused by man-made destructive forces.

We print elsewhere the first message to arrive, which recounts the story of his journey by air, and his early disappointments when attempting the flight by private 'plane.

We wish him the best of luck and look forward with interest to reading further reports of the venture.

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OUR Dental Correspondent sends us the following communication :—

" Dental students have been completely shaken by the ' Surprise Item ' which they have received this month. They have, at last, actually been endowed with a real live commissionaire of their own, ' uniform an' all,' in the Dental Building.

A small lodge has even been built for him beneath the first flight of stairs. The whole situation is too amazing for words.

His duties are many. He will conduct patients from the waiting room to the X-ray room, a distance of about 12 feet, but a journey which seems like a maze to the average patient, who either turns left, up the stairs, or right, out of the building. He will have to learn, perhaps, and explain to patients the meaning of that notice, 'Patients must report here before proceeding any further,' or words to that effect. This notice is ignored by many patients who make straight for the door marked "Students Only." Mark you, there may be method in their madness, especially amongst the fairer sex.

He will also daily inspect the saliva ejectors and chair lights, such as they are, in the Conservation Room, and see that they are all in order. Lastly, and most important of all, he will be in charge of a store of that so necessary type of paper which, every now and again, is lacking in that vital corner of their building.

The Dental Department wishes good hunting to Mr. Dyke, the new commissionaire, who has already given seventeen years of valuable service as a porter on the Medical side."

WE would draw attention to the fact that the National Provincial Bank, Ltd., have opened a branch in the Counting House of the Hospital. The hours of business are Mondays to Fridays, 9.45 a.m. to 3.15 p.m.; Saturdays, 9.45 a.m. to 11.45 a.m.

Treatment of Mammary Abscess

A Short Article by H. J. B. Atkins, Esq., D.M., M.Ch.

SOME time ago I asked the appropriate House Officers of the Hospital to allow me to treat by aspiration any cases of breast abscess that might come under their care at Out-Patients.

I am now finding it increasingly difficult to be permanently at the disposal of the Out-Patient Officer or Assistant House Surgeon, and as I am convinced of the great advantage of this method of treatment in certain cases, I thought that, if I outlined such features of the treatment as had been found helpful in my cases, it would encourage those who have to deal with breast abscesses in the Hospital to adopt aspiration when it was indicated.

I intend to publish a full account of this method of treatment shortly, giving the results in my series. In the meantime the following points may be useful:—

1. The treatment, which requires considerable patience and care, is time-consuming; but it is worth while because there is no need for a general anæsthetic, no hospitalisation, no dirty dressings, and the cosmetic result is much better than when incision is required. Further, nurses "on the district" can go on attending midwifery cases when they have to deal with a breast abscess treated by this means, as there is no danger of carrying infection.

2. Aspiration is a suitable method of treatment for all breast abscesses, except the subcuticular variety. The intramammary abscess with a subcuticular extension is also suitably treated by this means, but the technique is slightly different and the treatment more difficult, so that it would be better at this stage to advise incision in these cases. The most difficult part of the treatment is in deciding when to aspirate, and this can only be judged by experience. Any of the signs of pus constitute indications for aspiration, and particularly redness or œdema of the skin, even when fluctuation cannot be detected. I have found that the more of these cases that I do, the earlier I diagnose pus.

3. The method consists in giving the patient a quarter of a grain of morphia twenty minutes before the aspiration is due to begin, and getting her to lie quietly on the bed or couch where the aspiration is to be performed. The exigencies of the Out-Patient Department make the giving of morphia, with its need for subsequent rest, a difficult procedure, but the patient may be rested in a bed in the ward for six hours, or, if a bed is not available, another sedative may be substituted and the patient discharged directly after the treatment.

The whole breast is carefully cleaned and a subcuticular wheal made over the most prominent part of the abscess with 0.75 per cent. Procaine solution to which the requisite amount of adrenalin has been added. This wheal must not be more than 1 cm. in diameter, otherwise the skin will slough.

The Procaine is then infiltrated into the breast tissue underlying the wheal, and by firm and controlled pressure the needle is made to enter the abscess cavity through its tough wall. As soon as this is effected the plunger of the syringe, which previously could only be pressed down with

difficulty, suddenly passes rapidly and smoothly through the barrel of the syringe. The needle is then slowly withdrawn and more local anæsthetic is injected on the way out. After waiting a full minute, the special wide-bore needle (kept for this purpose by Sister Out-Patients) is mounted on to a 20-c.c. syringe and passed carefully into the abscess cavity. The pus is then aspirated and the amount withdrawn measured. The syringe is then loaded with a volume of 50 per cent. Dakin's solution equal to four-fifths of the volume of pus withdrawn and this is slowly injected into the abscess cavity, being then evacuated and discharged from the syringe, keeping the needle *in situ*. This process is repeated (sometimes twenty or thirty times), until the aspirated fluid is practically clear and stained only with a little altered blood. The abscess is finally emptied as completely as possible. During the course of aspiration it may be found that fresh loculi are broken into, as is evidenced by thick pus being once more withdrawn into the syringe. The appearance of a little blood indicates that the aspiration is drawing to a close.

At the end of the washing out the needle is withdrawn and the puncture hole sealed with collodion. Gauze sponge is then applied over the skin covering the superficial wall of the abscess in such amounts and folded in such a way that, when it is strapped tightly to the breast, it tends to obliterate the abscess cavity, approximating the deep and superficial walls. The breast is then suspended, but not compressed, by means of one or two strips of elastoplast carried from the scapular region of the same side, under the affected breast, which is protected with wool in the submammary sulcus, and up over the medial part of the opposite breast, or between the two breasts, to the shoulder of the opposite side. The arm on the side of the affected breast is put into a sling, partly in order to rest the pectoral muscles of that side, but mainly to prevent an energetic Borough mother from continuing with her full house-work for at least two or three days, until the inflammation has subsided.

The breast must be inspected at least every forty-eight hours until the condition is obviously settling. It is only very rarely that a second aspiration is necessary, and I have never had to resort to incision. The problem as to whether to wean the baby from the affected breast, to evacuate that breast by means of the pump, or to dry up the secretion is dealt with according to the established principles underlying the treatment of breast abscesses by whatever method.

In conclusion I should like to thank all those Registrars and House Officers who have let me know when cases of breast abscess were available, and have given me facilities for treating them.

A Journey to the East

A Special Dispatch received from Donald Hankey, Esq.

HAVING heard that travel by air was both rapid and enjoyable, and having the desire to reach Hong Kong quickly, we gladly accepted the invitation of a friend to fly us out there in his own three-seater 'plane.

At last, Thursday, November 25th, 1937, arrived and we left London, feeling rather self-conscious in our new flying boots. As we got near to Heston Airport a white fog began to descend upon us, and odds on us leaving that day began to fall rapidly. On the airfield conditions were even worse with visibility scarcely two hundred yards. Apparently the criterion of whether one could or could not leave the airport was one's ability to see a huge gasometer which (we thought foolishly) someone had built just outside the confines of the aerodrome. At 3 o'clock after much speculation as to whether the sun would break through in time to make a take-off possible, conditions rapidly became worse, and all our kind friends and relations, who had come to see us off, departed, and we were left to bemoan our fate alone.

The next day was the same and returning to the airport that evening we groped our way back to find ourselves in some strange hangar instead of at the airport, so thick was the fog (anyway, that's our story!).

However the next day was quite perfect and we suggested a trial flight. The gasometer had appeared in all its glory at least twice as high as we imagined any gasometer could be built—a nasty thing to hit.

Our plane was a three-seater single-engined monoplane, called a "B.A. Eagle," with Gipsy engine. "Eagle" sounded fine, but of the "B.A." we were not to learn the full significance until later. Our request for a trial flight having been acceded to we taxied across the airport only to be told by the pilot that all was not well, the controls had become jammed for some inexplicable reason, and a take-off that day was out of the question. It took two men the best part of thirty-six hours to replace a damaged portion, and at one time we went to the hangar to find our

" Eagle " without its tail. However, while the mechanics were working on their backs at the machines, we were lying on our stomachs studying maps of the proposed route. We now began to realise the wisdom of the pilot's remark when he said " we should reach Hong Kong in fourteen days, *all being well*."

Anyway, four days later than our intended departure we at last took off for Paris. Travelling at 140 miles per hour we soon reached the coast. It seemed that it would be a matter of seconds only to cross the channel until the 'plane began to bounce a good deal, and then we could scarcely control ourselves until reaching French soil before being sick. For that reason we could take little interest in the country below until, at about 4 o'clock, we began to near Le Bourget. Darkness would have been on us in thirty minutes. Unfortunately, when we got within ten miles of Le Bourget a thick ground mist obliterated everything, and we knew it was useless to go on. We circled for what seemed ages, it getting darker all the while, until finally we saw a splendid forced-landing ground—a brick-works with at each end tall forbidding chimneys. We landed a little too fast, perhaps, and ran to within a few yards of some sheds before coming to rest. But anyway we were on firm land and the 'plane intact.

Rapidly from all directions appeared French farm labourers, followed ten minutes later by two gendarmes on bicycles. We covered the 'plane with a tarpaulin and motored to the local police station. There, hours were spent, everyone being delighted and amused by the Chinese and other writings in our passports. Photos were checked and re-checked, and some time later we travelled to Montmorency, a suburb of Paris, and put up at the local hotel. Here we appeared to be three rays of sunshine, the party seemed to brighten immediately, Dubonnet flowed like water (not literally), the billiards became so fast and furious that the plate containing the " kitty " was smashed, and all went merrily as a marriage bell!

Oh, boy! what a supper! The *pièce de résistance* (notice French) was hare pie, washed down with champagne at three shillings a bottle. Unfortunately, one of the party said in reply to whether he wanted anything further to eat, " Je suis plein " (which meant he was drunk) instead of " J'ai bien mangé," and to all outward appearance endorsed the statement by knocking over the champagne. To the one parlour maid, however, this was romance—three Englishmen dropped from the clouds, here in her own small world. She danced round the table and nothing was too much trouble. This orgy continued until bedtime, when we were shown the bathroom, " the other room," and finally her own room, " in case we needed anything during the night."

Next morning at 6.45 we were wakened by an angel voice saying " petit dejeuner," and after a hurried bath, in which, believe it or not, the bath water emptied itself all over the floor as it does in the College, we drove out to our aeroplane. There the frost had been a mixed blessing, the ground would make a lovely take-off, but the engine was cold and sulky. We all took turns at swinging the propeller. It may be easy work once or twice, if you don't get decapitated, but not for a solid forty-five minutes.

As everything comes to him who waits, it suddenly burst into activity. We took the luggage with us and let the pilot take off by himself, as after a delay by bad weather reports the ground had thawed and was now sticky. At the first attempt the 'plane no more than trickled across the ground; then the pilot managed a difficult take-off across wind and was soon on his way to Le Bourget, and we followed with the luggage by car. Visibility was still so poor that the pilot only managed to reach the airport by following an Imperial Airways machine, which, of course, could make use of its wireless. For two days we remained at Le Bourget with fog hanging all around and unable to take off again. However, we saw a little of Paris, and greatly admired it.

On our second night in Paris we thought we should go and see a show, so it was a choice between " Carmen " and the Casino de Paris, featuring Maurice Chevalier! Maurice Chevalier won, and, preceded by a supper of oysters, baked rabbit and *vin rosé*, we got to the theatre nearby at nine o'clock.

On the way home to our hotel we met two Dutch Jewish diamond merchants, who asked us to come and have a drink with them. We accepted politely, and in course of conversation they said they were going on to see some hundred French girls swimming in a bath. At that we considered our bedtime had arrived, and said so. Having asked us to have a drink, they then suggested we should go fifty-fifty, and we finished by paying the lot. Two days later, in the Champs Elysées, not having recognised us, they came up and asked us to direct them; they were still looking for the hundred French girls and the swimming bath. This time we regretted we were unable to join them in a drink.

Finally, exactly a week after the date we intended to leave Heston, a possible flying day arrived. At 8.30 we were in the 'plane ready to start, weather reports on the way were excellent and life seemed full of joy again. Not for long, however. No

sooner did we taxi to the centre of the airport than suddenly, without warning, the undercarriage collapsed inexplicably and to our utter amazement. After a few seconds of bewilderment we climbed out, without a scratch, to see approaching us at top speed one of the largest fire engines you can imagine, with men in blue overalls clinging to it like flies, followed hotly by an ambulance. After much photo-taking and some tipping they turned sadly away. We made hurried decisions. The 'plane should be repaired, the pilot should go to London at once with the bent propeller, which we dismantled then and there, and spare parts should be sent out to us.

In due course the spare parts arrived; reports said the 'plane could be made as new in three days. Unfortunately difficulties unforeseen arose and an English mechanic had to be sent for. Yes, he was certain another three days would see the work completed. Not so, however; the damage was worse than could have been imagined. The whole 'plane would have to be shipped to England and dismantled before being repaired. And so, fourteen days after our proposed departure, we were still in Paris, and the pilot's remark that we should be 9,000 miles away "all being well" struck us with the full force of its meaning. And the author decided to fly on alone, this time by Dutch Airlines.

After a week in Paris, wishing all the time we were the other side of the world, I was not sorry when the day arrived for us to leave by air for Amsterdam. I went by Dutch Airlines, one of the quickest methods of reaching the Far East, the journey from Amsterdam to Batavia being accomplished in 6½ days for the 9,000-mile journey. As, by agreement with French Airlines, they are not allowed to take up passengers from Paris or Marseilles, we were taken gratis from Le Bourget to Amsterdam, whence we were to start on the following day. The journey to Amsterdam from Paris took about two hours in a most luxurious seven-seater 'plane all-metal and of Douglas make. There were two passengers only on this part of the journey. Unfortunately, we could see nothing of the land below because of thick mist. When we arrived at Amsterdam, the airport was under snow and an icy blast was blowing. We were taken to the restaurant overlooking the landing ground, from which we watched nine military 'planes doing take-off and landing exercises while we enjoyed an excellent lunch. Later we were taken by bus to Amsterdam to the Carlton, which must surely have lived up to its namesake in London. There we found we were under the same roof as Robert Taylor, who, as usual, was awaited by a crowd of hysterical women outside. A most enjoyable dinner followed at 9 o'clock to the accompaniment of an excellent dance band. The outstanding item of the dinner was grilled chicken, which was cooked at our side and served with fresh fruit. We were somewhat taken aback by the head waiter kindly but firmly telling us we did not need to take so much salt with it—which criticism we think was justified.

The following morning we were awakened at no greater an hour than 5.15 a.m., owing to the fact that we took rather too long in our sumptious bathroom we were unable to try more than one of the seven varieties of bread and cold meats they presented us with at breakfast before we were whisked away in cars to the airport, over roads covered with fresh snow. There we waited for daylight, as weather conditions were not good enough for a blind take-off.

When we did finally see our 'plane for the first time it was worth the wait. A huge all-metal single-wing 'plane with two engines, carrying no less than eleven passengers and crew of five, which included a steward. Each passenger had sufficient leg-room to be able to lie at full length if he deemed fit, as all seats were adjustable and had leg-rests provided (on rough days we spent most of our time like this). No wonder these Douglases which cruise at 180 miles per hour became known as flying hotels. Light refreshments are provided on board, and our speciality was eel sandwich and coffee.

The first day we were to call at Marseilles and stay the night in Naples. The first part of our journey took us over field after field of glass-houses, forcing, we were told, lilac, roses and almond blossom. Then over mile after mile of rectangular fields cut by waterways, and finally over the famous nurseries of Boskoop. Then below us in Belgium we see Namur, and we pass over pine forests and grey rocks and yellow loamy soil, till we reach France.

In France we see rather uninteresting country, but soon we fly between the Alps and the Cervennes. In the distance we see the mighty Mont Blanc. Now below us lies the river Rhône, winding southwards. Here all the fields are protected by tall hedges or rows of poplars running west and east as a protection against the mistral. At last we reach Marseilles in no more than three and a half hours. Here we land, and while the 'plane is refuelled we have tea and biscuits at a small house. On the table are freshly picked violas and marigolds. Here, indeed, is the sunny South of France, with the weather quite warm.

Again we take the air, this time in one hop for Naples. Now the weather becomes really bad, and we have to fly below great black thunder

clouds at only 900 feet. The 'plane rocks and bumps; no longer is the Mediterranean Sea blue, but grey. We pass within a few hundred yards of Corsica, once the home of bandits and then we see Monte Cristo, a rock in the sea below. Nothing more to interest us now, for we are flying over the sea, till we reach Naples, hugging the coast all the time—and for a reason: one of our engines has given out and we must be near land if the other does the same.

At Naples we land safely, but in the rain. The climate is very warm, however. After Customs formalities we are taken to our hotel on the sea front overlooking the Bay of Naples. A glorious view, Vesuvius in the distance, capped by clouds; terraced hills with houses all the way up from the sea, and in the harbour hundreds of little boats with white sails.

After dinner we listened to Mussolini on the wireless announcing to the world that he would leave the League of Nations. Although there was quite a crowd of people round the wireless in the hotel, including a number of the hotel staff, their reactions to the speech contrasted strangely to the apparent terrific enthusiasm of those in Rome. One would naturally not expect the waiters to stand on their heads with joy, but we could detect no enthusiasm at all. Although in London we had been told two weeks before what Il Duce would say, we could not resist the temptation of asking the concierge for a translation, and when he said "Italy has left the League," we just had to reply, "Is that all?"

That evening we learnt that we should have to spend twenty-four hours in Naples, as one of our engines had fractured a cylinder. Anyway, K.L.M. dispatched a new machine, which took us on a day later, also four mechanics and a new engine to replace the old one, which we thought good service.

We enjoyed our enforced stay on the Sunday. The day was warm and fine; we breakfasted at peace with the world in the sun—discarded a waistcoat and walked to the English Church. Outside we were besieged by beggars taking their own collection. Afterwards we walked in the hot sunshine on the sea shore, and as if to impress the sermon on us we watched the fishermen dragging in their nets.

The following day was Monday, December 13th, and to celebrate it they got us up at 5.15 a.m. and in the dark took us away to the airport, where we went aboard our 'plane and left at 6.30, at dawn.

Over the harbour we circled, the boats appearing as toys, over the Isle of Capri, across the Appenines and finally over the Straits of Otranto. On the latter part the land below us was made up of strangely shaped limestone rocks, with here and there a cone-shaped crater or long-extinct volcano, valleys with turbulent mountain streams and little villages. Also small houses perched high on the hillsides, with paths from them trickling down to the sea.

Finally we reached the Greek coast, and after a further hour's flying we arrived at Athens, where we landed to refuel.

The weather is really hot now, or is it because the airport is set between hills? Vegetation is sparse and it is difficult to imagine how the inhabitants can scrape a living in this district. This airport is used by the Greek Air Force also, and drawn up in long lines are Bristol fighters of English manufacture.

After an excellent lunch away we fly again, our next stop and for the night being Alexandria. To-day flying conditions are so good that we do not call at the beautiful Island of Rhodes. Over the Archipelago we go, the islands appearing as pieces of a jig-saw puzzle. Red rocks, green hills, small white homesteads, pale golden sands set in a blue sea, and after two hours' flying Alexandria appears on the horizon. It is like a huge white patch on the coast-line.

Here it is really hot, and our heads buzz from the effects of eight hours' flying. Then by bus to our hotel. On the way we see much of the dirt and squalor of Alexandria. Hosts of tiny children playing in the dust; donkeys and horses grossly overladen with piles of merchandise, struggling bravely in the streets, and everyone and everything surrounded by flies. That evening we welcome our bath and our supper and retire for an early night in preparation for the morrow.

And of the morrow we take an extract from our diary: "Woke with start at 5.30 a.m., 'phone concierge and ask why the hell he did not wake us at 5, with the others. Cut face shaving, no breakfast, rotten cold, sore throat, earache. Leave hotel at 6 o'clock; no time for breakfast. Travel in darkness to airport, hooting all the way.

"6.15, almost light; glorious sunrise flaming red sun and mistiness everwhere. See very little when flying for next hour; cloud effect looks just like riding over a sea of snow. Arrive Tel Aviv 8.45."

Tel Aviv, near Jaffa of orange fame, is situated almost on the coast, about forty miles north of Jerusalem. There at the airport we talked to a sergeant of some Scotch regiment. When asked what he thought of the country he said, "It's just miles and miles and miles of damn all" in true British Tommy style. Apparently they had spent most of their time since November touring the coutryside in lorries looking for snipers. Still he made the concession that it was a most healthy climate, and the only illness in the battalion had been a few boils.

Now we have a 500-mile journey across the Syrian desert; appropriately enough we sleep during most of this part. During the latter part of the journey, however, the scorched soil gives place to more fertile lands watered by the Euphrates. This muddy, tortuous river can be seen winding from afar, filling the primitive irrigation ditches with glistening water. Three and a half hours after Tel Aviv we reach Baghdad, with its most modern airport. Baghdad, we are told, once such a fair city, has now fallen upon evil days, having adopted all that is slovenly from the West. Thirty minutes only did we spend there, and then we circled away. In the streets below we see some native cavalry, and then further afield a long faint thread, a camel train.

Basra is our next stop, and here we shall stay for the night. In the last hundred miles before we reach it we pass over vast swampy territory. Huge patches of dark-brown forbidding forest, finally it gives way to large mud-flats, and the Tigris can be seen. Lying alongside is Basra Airport, where we land at 3 o'clock. What a wonderful airport this is, with modern buildings rapidly nearing completion, and motor roads radiating in many directions. As the Airport Hotel is not yet completed, we are taken to a local rest-house.

That evening we were treated to one of the most glorious sunsets it has ever been our lot to see. It was all over very quickly, but what a sight! We saw the small clouds in the rest of the sky reflecting the redness of the setting sun, palm trees silhouetted against the sky, and a lovely calm.

The next morning we were awakened at 4.15 (it was getting earlier each day). At 5.30 we left the airport, which was floodlit for the purpose, and away we went into the starlit sky. We flew along the coast of Iraq, over the Gulf of Oman to Djask, passing over an occasional village. There was little else to see but mile upon mile of barren rocks and hills bordering a sandy beach. Most of the trip we flew at between 5,000 and 9,000 feet, the height depending upon atmospheric conditions. Generally winds are stronger high up, so flying against head winds is done at a low altitude. But again, clouds, bumpy air, dust-storms and high temperature may make one fly higher.

At last we land at Djask after a flight of 500 miles. It was a Heaven-forsaken spot, once quite busy as an English cable station, now on the down grade with wireless coming into its own.

We arrived just after a heavy rainstorm and in a 40-m.p.h. head-wind. We stopped long enough to have a second breakfast of tea and pancakes. Personally, we were distrustful of the pancakes, and there was no milk as the local goats had got their feet wet as a result of the changeable weather.

Weather reports were sufficiently good to let us proceed. This we did against a stiff headwind, and two hours later we crossed the Baluchistan border. We had been travelling now eight hours and the combined effect of this, the high altitude (10,000 feet) and a severe head cold had entirely abolished one's sense of hearing, which did not return until a week later. From Djask to Karachi was 592 miles, and we were delighted to see in the distance the huge airship shed and mooring mast. At Karachi we stopped for tea, and were asked to see the local medical officer, but, unable to hear his questions, we answered, "Yes," "No," "No," in that order, and he seemed quite satisfied.

As dusk was falling we took off again, and this was to be our first experience of night flying. There was, naturally enough, little to see except an occasional twinkling light as we passed over the river Indus, over the territory of Bombay Presidency, over the Indian Desert into the State of Rajputana to Jodhpur, where we were to stop for the night. At last we saw the twinkling red boundary lights of the airport and, after circling once or twice, coming lower and lower all the time, and landed by the aid of floodlights. It was then 9 o'clock and, having started at six in the morning, we had covered nearly 1,700 miles. Having reached the Jodhpur State Hotel, only a few minutes away by car, we were fit for nothing except to flop straight into bed and to sleep fitfully in a temperature we were unused to until 4 o'clock the next morning, when we were wakened unmercifully. Having tried to snatch a few extra minutes in bed, we found the other passengers—a Scotchman, an American, an Indian and an Englishman—had left without us, and when we arrived by another car at the airport we found the propellers of our 'plane already twirling. And that day was Thursday, December 16th, the last day but one before we should reach Singapore. Our route lay by way of Allahabad, in the United Provinces, Calcutta and Akyab on the Bay of Bengal to Rangoon, where we were to stay the night, a tidy distance of 2,000 miles.

Owing to the fact that it was dark, and more important still that we were trying to make up some of our beauty sleep, we saw nothing until we arrived at Allahabad at 8 o'clock, but we understand that the country is barren and inhospitable, with few cultivated fields, but much wild rocky country intersected by ravines covered with scrub, so we had not missed much. We did, however, see the river Jumma and the Ganges, at the confluence of which lies Allahabad.

We were allowed exactly half an hour to eat our bacon and eggs, and then on again. From Allahabad to Calcutta, however, was more in-

teresting. In the Plain of Bengal are vast numbers of villages and towns, and the weather being quite perfect now we could see a tremendous distance—a huge flatness all patchworked with brown and green fields, bunches of trees and winding roads, and here and there pools of shining water.

And then we came to Calcutta and the Ganges delta, myriads of streams chopping the green fields into strips and finally into mudbanks before the river empties itself into the Bay of Bengal.

At Calcutta we had lunch at the local flying club, and on alighting from the 'plane we were greeted by no less than five mongrel dogs for whom no one seemed to have a good word. To us, however, they appeared quite like foxhounds, and for that reason they were friends until we left. From the veranda of the club, toying with our lunch, we watched some native boys working slowly, enlarging the airfield. One man's job consisted in sitting by the small railway on his haunches and standing up respectfully each time an iron truck passed, pushed by two perspiring boys.

And then we passed over the Bay of Bengal, of brilliant blue. Unfortunately, we did not call at Akyab, on the Burmese shore; if we had we should have seen two of the R.A.F. flying boats which had been compelled to put in there, on their way to Australia, for repairs.

Soon after leaving Calcutta we were told by our wireless operator we should soon be passing another K.L.M. 'plane on its homeward journey, and, sure enough, about a thousand feet below us we saw the 'plane passing us at an incredible speed—one got an excellent idea of what 360 m.p.h. was like.

At last, after passing over the vast forests of Burma, where every mountain is covered by closely packed trees and after passing over mile after mile of square patched rice fields under water twinkling in the sun, we arrive at Rangoon.

No sooner had our 'plane alighted than a little crowd of gaily-clad Burmese women and children collected by the barrier, dressed in bright yellow, blue and pink clothes, their almond eyes glittering behind a coffee complexion. Round about them ran small boys, with the tails of their shirts flying in the breeze, as is the fashion. Here there was a humid heat, and we were glad of a refreshing drive in a car to our hotel, along beautiful clean roads with waving trees each side, washed by recent rains. Near to the road we saw the golden pagoda towering above the trees, where, it is said, in a shrine are laid eight hairs of Buddha, given by him to the two travellers who founded Rangoon.

The next day was to be the last of our journey to Singapore, and as if to celebrate it they woke us up at a quarter to four. That time of the morning was still warm, however, and our drive to the airport was refreshing after a somewhat unsound sleep under a mosquito net.

From Rangoon we passed over the Gulf of Mastaban, and an hour later reached the Siamese border. Here the country is mountainous and covered to its summits by jungle. No human habitation here. Later, however, we reached lower ground with a few villages, and then a land of bamboo groves and palms, and where there is water the houses are built on piles or pontoons.

Two hours almost to the minute after we left Rangoon we reached Bangkok, the capital of Siam. Unfortunately the airport is far from the city, but we can best quote from a guide-book to describe it briefly: "A city most nearly approaching the East of our dreams. Golden pagoda tops, temple towers of dazzling colour framed in spacious green parks, white and gold palaces, and ornamental roof ridges, a royal town trebly walled."

And now we travel to Penang, off the Malay coast. Unfortunately, the vast majority of our journey is across the Gulf of Siam, and only occasionally do we see the coast. Finally we come to a beautiful island of low mountains and green woodland with neat houses; then we reach Penang. Here the weather is the hottest we have known it yet. Scarcely can we walk in comfort the two hundred yards to the bungalow, before sinking into a chair under a whirling fan, there to have lunch.

Once more in the 'plane, however, it is cool, and at 9,000 feet a rug is welcome. Now we are over Malaya on our final hop to Singapore. First we are over jungle, then over sugar or rubber plantations, and finally in the Straits of Malacca we see our destination, the beautiful island of Singapore.

The airport is under almost an inch of water, and we land in a sea of spray.

Thanking our crew for such a wonderful journey we bade them adieu and took a taxi to Singapore Town, once more to be lost amongst many of our own nationality.

Arsenic in Dentistry

A Clinical Lecture by H. L. Messenger, Esq., M.C., L.R.C.P., M.R.C.S., L.D.S.

GENTLEMEN,—It must have been some time in June, 1928, that a young man of some twenty-seven years of age went to a dental surgeon in London with the idea of having a tooth extracted. The tooth in question was an upper right canine, and as it alone was carious

amongst some otherwise excellent upper front teeth, the dental surgeon very wisely and very properly advised the man to have it filled. And he agreed to this.

As the excavation of the tooth was proceeded with, it became obvious that it would be necessary to extirpate the pulp and an arsenic dressing was inserted for its devitalisation. The man was given an appointment for five days hence, which he kept, and the tooth was opened up. When a bristle was passed into the root canal the man stated that he experienced a "stab of intense pain." So the dental surgeon inserted another arsenic dressing.

I think that I must just leave the story for a moment in order that you may be quite clear about the causes of pain in or around a tooth which has had an arsenic dressing for what is thought to be the correct length of time. They are three in number.

Firstly, the arsenic may have required more than the regulation five to seven days in which to act for one or more of many reasons. The deeper parts of the pulp tissue are still alive, and the passage of a bristle into the pulp causes pain.

Secondly, the arsenic may have had the required time in which to devitalise the pulp and the bristle may have been passed right through a dead pulp, through an apical foramen which, without in any sense of the term being pathological, is nevertheless larger than normal into the peri-apical tissues beyond. This would cause a "stab of intense pain."

Thirdly, pain may be caused through the manipulation of a tooth from which the inflammatory process set up by the arsenic has spread to the periodontal membrane and bone of the socket.

To return to the story. The dental surgeon had inserted a second arsenic dressing. Almost immediately the man began to experience increasing pain of the neuralgic type over the right side of the upper jaw, which in two or three days became considerable. He returned to the dental surgeon, who replaced the arsenic dressing with a sedative one.

On that same evening he went to Jersey for his summer holiday. He was unable to get a berth on the boat. It was intensely cold in the early hours of the morning, and in those days the Southern Railway Company's boats were not nearly so well-found as they are at the present time. He arrived at St. Heliers at about 9 a.m. with his face beginning to swell. He went to a dental surgeon at once, who gave him some gas and extracted the upper right canine tooth and the first premolar next to it. I have no information as to the apical condition of the canine. The swelling and pain continued. The left side of the face became involved and the man was very ill indeed. He went into the hospital in St. Heliers and was treated with fomentations and injections, which, I think, must have been of emetin, for a month or so. Subsequently he returned to England.

I saw him here at Guy's some time in August. He then had a well-established osteo-myelitis of the premaxilla and maxillæ. Pus was pouring down the sockets of the incisor teeth; the alveolar bone had that spongy, grating feeling with which one associates extensive necrosis; the breath was foul.

We extracted the four incisor teeth under a continuous gas anæsthesia and a large amount of necrotic bone came away—about 20 sequestra of varying sizes were counted—together with much pus. To cut a long story short, in addition to the upper right canine and premolar and to all the incisors, he lost the upper left canine and a premolar and proceeded to exfoliate a number of sequestra of varying sizes over a period of six months or more. A prosthetic appliance was made and adjusted to make good the loss of tissue.

Later on, in March, 1929, he turned out a large sequestrum consisting of the outer alveolar plate of the first right upper molar. I removed this with the tooth concerned and a tooth was added to the denture.

I was rather inclined to jump to the conclusion that the original cause of that osteomyelitis was arsenic. There were two ways in which arsenic could have started the trouble. Everything seems to have been quite all right up to the time when the first arsenic dressing was removed. It is possible that the second arsenic dressing may not have been sealed in properly, so that a leakage of arsenic occurred, giving rise to an ulcerative gingivitis, then a periodontitis, then an osteitis, and then necrosis. Or the arsenic may have found its way through the apical foramen, giving rise to the same symptoms. In either case a streptococcal infection supervened, the organism coming directly from the mouth or via the blood stream.

Mr. Bulleid tells me that it is quite uncommon to find anything but a streptococcus in these cases, which follow on from arsenic necrosis. A staphylococcus is rarely met with.

There was at the late stage at which I first saw the patient no definite evidence that arsenic was the cause of this accident, and there were other possibilities.

Firstly, the introduction of septic material into the root canal and through the apical foramen when the first arsenic dressing was changed. You remember that the man complained of a stab of intense pain when the bristle was passed, and we have no evidence that it was a clean one.

Secondly, the infection after exposure to cold, which undoubtedly occurred on his sea trip, of tissues which had been damaged by arsenic, sepsis or loss of vitality of the pulp.

Thirdly, the infection from an adjoining tooth or from elsewhere in the mouth of tissues of reduced vitality.

I was quite unable to decide what was the cause of this infection, but I have brought the case before you because it illustrates perfectly well what may happen when arsenic is let loose.

Here is another case. A girl, twenty years of age, went to a dental surgeon about a first lower permanent molar which was carious. A second dose of arsenic had to be inserted, and was allowed to remain in two days too long. The tooth became "periostitic," as the saying is. The dental surgeon removed the pulp tissue from the pulp cavity proper, but left it in the root canals. He then completed the filling of the tooth by inserting a mummifying paste with an amalgam filling on top. Infection had supervened with an alveolar abscess, a swollen face and all the rest of it. I extracted the tooth, but not in time to prevent necrosis of the bone of the outer alveolar plate. The point to be noted here is that if you want to have the slightest chance of saving a tooth which has become "periostitic" from arsenic, you must remove every scrap of pulp tissue. By doing so you at least remove the arsenic within the tooth, but you still have to chance the arsenic which has made its way into the periapical tissues.

Now, there are certain things which you can do to minimise the risks of these accidents, and I must say something about cavity preparation. If you think that you are going to reach the pulp, set about preparing the edges of the cavity first of all. And pay special attention to the cervical edge. If it is difficult of access it may be a wise thing to build up a wall of osteo, thereby converting the cavity into an occlusal one.

According to the condition of the cavity it is better to place the arsenic in one of two positions. If the pulp is exposed, place the fibre very carefully on the exposure and keep it in place with a pulp cap.

The easiest way to handle a pulp cap is like this. Smear the head of a burnisher with vaseline. Touch the pulp cap on its convex side and it adheres. Place the pulp cap into position in the tooth and the melting vaseline allows you to withdraw the burnisher and leave the pulp cap behind.

If a layer of carious dentine covers the probable exposure and its removal would be painful, put the arsenic in contact with some sound dentine. All dentinal tubes lead to the pulp and arsenic finds its way more easily along sound ones than along those loaded with organisms.

When you have removed all the caries from the margins of the cavity and the bulk of it from the rest and you have so shaped up the cavity as to retain a filling, you then have to consider with what material you are going to seal in the dressing. There are available gutta percha and oxyphosphate of zinc cement.

With the former the cavity is mopped out with oil of cajuput, and the partial solution of the warm gutta percha in this oil produces a watertight filling. With the latter the cavity is dehydrated with alcohol or chloroform, and the osteo adheres firmly to the cavity walls. Zinc oxide and oil of cloves may be substituted for the oxyphosphate of zinc. I always use gutta percha myself because it is easiest and quickest to insert and remove.

To guard against the mishap of arsenic passing through the apical foramen, care must be taken to find out whether the roots are fully formed. A knowledge of the dates of eruption of the teeth and of the periods which elapse before the roots are completely formed is necessary.

The devitalisation of a temporary tooth is not a common event, and probably the second temporary molar is the only baby tooth to be so treated. I must, however, remind you that the apices of the baby teeth are closed twelve to eighteen months after their date of eruption, and the roots start to absorb a rather longer period before the date of their loss. Therefore arsenic may be inserted, for forty-eight hours only, into a second baby molar between the ages of four and eight.

As far as the permanent teeth are concerned, the first molar erupts at $6\frac{1}{2}$, the apices are closed at $9\frac{1}{2}$, so, to be on the safe side, ten is the earliest age at which to use arsenic.

The roots of the central incisors close at ten and of the lateral incisors at eleven. The premolars, erupting at ten and eleven, have their apices closed at twelve.

The length of the canine root is variable; the tooth erupts between nine and fourteen, and the apex is closed between fifteen and sixteen years. The second molars' roots are closed at sixteen, and those of the wisdom teeth at twenty-one. If you are in any doubt about the condition of the apices, do not hesitate to make use of X-rays.

The ideal pulp for devitalisation with arsenic is a young one, and if the exposure has been made accidentally at the end of the cavity preparation, these are the happiest conditions for its successful extirpation. The more the pulp approaches a condition of pulpitis with accompanying periodontitis on the one hand, or fibroid and calcareous degenerations on the other, the greater the risk, the danger and the difficulties attendant on the use of arsenic. A young healthy pulp requires

four or five days in which to die, but an old hoary veteran which has survived the irritation of a metal filling for many years, may take six months or more. Generally speaking, an adult pulp will die in seven days.

Arsenic, antimony and chromium form compounds which have many physiological and chemical points in common. The oxides are powerful caustics. Internally these compounds are severe gastro-intestinal irritants. They are readily absorbed, and traces of them may be found in all parts of the body post-mortem, and even in the nails and hair.

The arsenic in which we are interested is the oxide, commonly called arsenic or, maybe, white arsenic, of chemical formula As_4O_6. It is a heavy white powder, soluble in ten parts of boiling water, and having a dosage of one-sixtieth to one-fifteenth grain.

The most convenient way in which to apply arsenic to a pulp is in the form of fibre. Such a fibre is made by impregnating cotton wool with arsenic oxide, 50 per cent., and other drugs such as creosote, morphine acetate, oils of cassia and wintergreen and cocaine, 2 per cent. The smallest portion of fibre which it is possible to handle conveniently is sufficient for the purpose.

We also use arsenic empirically in the treatment of gingivitis and Fowler's solution is a suitable preparation. Fowler's solution is liquor arsenicalis, and it is a 1 per cent. solution of arsenic. It is best applied to the gums in the following mixture :—

Vinum ipecac.	1 oz.
Liq. arsenical	3 dr.
Glycerin	1 dr. misce.

Arsenic is used in small doses as a tonic. Its action may be to improve the hæmoglobin content of the blood, or to stimulate appetite. Then, also, arsenic in organic combination is injected intravenously in the treatment of syphilis. We found arsenic of great value out in Salonica during the war to give to men who had had far more quinine than was good for them. Arsenic combined with iron was useful in combating the debility and anæmia following on from malaria.

It is desirable to have some idea of the relative values of the three methods of pulp extirpation which are available. These are arsenic, local anæsthesia and pressure cocaine. The great advantage of arsenic is that it is doing its work in the interval between appointments and there is its moderately certain action. On the contrary, there is the almost certain pain and aching of the tooth for three or four hours after the dressing goes in, and its subsequent uneasiness for a day or two.

Given the necessary time, pressure cocaine is undoubtedly superior as far as lack of pain goes, but peri-apical infection is a real risk. Local anæsthesia is completely successful in less than 50 per cent. of cases, and usually requires pressure cocaine to complete the anæsthesia.

X-ray examination shows that " apical areas " appear at the ends of roots whose pulps have been removed under local anæsthesia, in five to fifteen months. If arsenic has been used the apical area appears in five to fifteen years.

Finally, because I have told you of two accidents which have happened with arsenic, don't be afraid to use arsenic yourselves. Seal your dressings in securely and join the London and Counties Medical Protection Society.

Debating Society

THE joint debate with the Nurses took place on December 7th under the chairmanship of Prof. T. B. Johnston. The motion was : " That this House would deplore the advent of State Medicine." This was defended by Nurse WADHAM, who opened the debate saying that State Medicine would mean the socialising of a great profession ; this, she declared, would be a bad thing. Was England to become like Russia ? (Cries of " No," and a few of " Yes.") The money to be raised would have to be from a tax or contribution ; we were already taxed far too much, and many would be unable to pay any contribution. At present, the surgeon who charged high fees to those who could afford them was enabled to perform free operations on Borough mothers. Red tape, which cropped up in great length during the evening, was her next point : State Medicine would make our hospitals like army hospitals, which, owing to stringent regulations, were uncomfortable to patient, nurse and doctor. At present we depended on charity ; till now this has not let us down. Again, if State Medicine were to come into being, there would have to be grades of doctors, as there are now, but when a man got to the top grade, what incentive would there be to strive to higher things as the State did not recognise higher grades ? This would be detrimental to the healing art. The speaker then extolled the praises of the family general practitioner, who, she declared, would disappear with State control.

H. Voss, opposing the motion, stated that the monetary objection to State Medicine could be easily overcome by, say, a weekly contribution of 1s. downwards. At present, the middle class were suffering; they were not on the Panel, neither could they well afford the high fees of practitioners and consultants. Most agreed that it would be well to extend the Panel to these; this would leave a minority of 2 per cent. not so covered. This minority might be ignored. The speaker also made the point that at present cure was the aim of the doctor; under State Medicine prevention would play a more important part. Doctors now see more patients than they can adequately examine or treat; under State control their patients would be limited in number according to the hours the doctor spent with them. Answering the objection that those who had a fixed salary would do less than those to whom private enterprise was open, Mr. Voss declared that those who held this were casting a slur on the characters of many noble men and women. He did not think that the Matron or the Superintendent worked any less for Guy's because they received fixed salaries.

Nurse JACOBS, for the motion, dwelt much on the disadvantages of red tape. At present the relationship between doctor and patient was a friendly one, better this than that both become part of a soulless machine. The general practitioner, also, had the advantage of a personal knowledge of his patient; this the State practitioner would not have. If £50 was the most a man could hope to increase his salary by in any time, why should he work more than was strictly necessary? At present the State services, as typified by the dental service to children, was not at all satisfactory.

Owing to the absence of the second speaker for the opposition the debate was thrown open to the House. Space precludes us from reporting each speech in detail; many things, however, were pointed out for our enlightenment. Nurses in Russia work six hours a day; England was not Russia. (Cries of "Hear, hear.") England did not want to become like Russia. (Slight disagreement.) There was bound to be graft in anything connected with the State. Any State service was liable to be influenced by politics; the medical profession and the nursing profession wanted to be governed by doctors and nurses and not by politicians—even Conservatives. (Extra loud cheers.) The Irish Sweep was a good thing; the Irish Sweep was a bad thing; etc.

The motion was put to the vote and carried by 97 votes to 31.

The secretary of the Nurses' Debating Society proposed a vote of thanks to the Chairman. This was seconded by Mr. Voss and carried unanimously. Mr. Voss also expressed the thanks of the Society to Matron for extending to it the hospitality of the Nurses' Home.

Altogether the meeting was a most successful and enjoyable one, and the hope that a further such meeting might be arranged in the coming year was expressed by all.

B. D. J.

Correspondence

The Front Quadrangle

To the Editor of the GAZETTE

SIR,—We have read with concern your "Passim" of December 18th, and we have been surprised at the absence of that correspondence which one might have thought would follow. The question of the demolition of the Front Quadrangle is not a new one; it was raised during the preparations for the Appeal. We were at that time your predecessors, looking after the fortunes of the *Gazette*, and in a conversation with Mr. Eason we were much relieved to be told that it did not then appear that there would be any necessity for the destruction of the Quadrangle in the event of the erection of a new block. The position seems now uncertain, and many are, like ourselves, anxiously awaiting definite information on this point.

Everyone will agree that a new Surgical Block is necessary, or, if that be too strong a term, is at least very desirable. Our anxiety is to know whether such rebuilding must necessitate the destruction of the Quadrangle. We realise that the outward appearance of stability which the Quadrangle displays may be deceptive; we have heard that there are considerable subsidences of the buildings, notably of the walls of the Chapel, and that their future existence may be already imperilled by defects in the foundations. In the absence of official information one does not know how far this may be true. Nor are we certain how far considerations of space may prevent the maintenance of the Quadrangle in its present form.

Thus, it may be necessary that the Quadrangle should be destroyed, but we write to ask if you could not obtain for us an assurance, or otherwise,

of the absolute architectural necessity for such a measure.

We cannot think that this is a matter of no importance. Here we have, in the Front Quadrangle, a building of considerable beauty; more than that, it is the Quadrangle which enables us to be one of the only three London hospitals which can be said to retain a worthy physical embodiment of their spirit and traditions. And the value is further enhanced by the rapid disappearance throughout London of other products of our greatest architectural period, and by the fact that, apart perhaps from the modern utilitarian Nuffield House, this is the only one of our hospital buildings on which we can look with conscious pride.

We recognise the difficulty in obtaining official pronouncements on such subjects, but we are unwilling, if the Quadrangle is unnecessarily in danger, to ignore the issue without even a feeble protest.

Yours, etc.,

PATRICK CLARKSON.
MAURICE PARTRIDGE.

Guy's Hospital,
S.E.1.

To the Editor of the GAZETTE

SIR,—I feel that I must enter the strongest possible protest against the suggestion of altering in any way the Front Quadrangle of the Hospital. I am, of course, a back number, as it is fifty-two years since I was house-surgeon at Guy's, but I feel sure that not only the few survivors of my time and the men of all the succeeding generations will join with me in hoping that such an act of vandalism will never be perpetrated.

Through all the past half-century, whenever I have entered the Quadrangle through those tall iron gates, the grace and dignity of those old buildings has given me a welcome as to a son coming home, and I cannot but think that thousands of Guy's men feel the same. This is sentiment, of course, which is perhaps anathema to this materialistic age; but is there not a good deal to be said for sentiment? Tradition and love of the things of the past rest on it, and our love of the old Hospital. Surely the history that is part of those old walls and the beauty that is theirs help to mould, all unconsciously, the characters of those that pass in and out.

May your protests, Mr. Editor, and those of a vast number of others with me stay the hand of the would-be destroyer.

Wishing you, Sir, and the *Gazette*, at whose reincarnation I assisted in a small way, success in 1938.

Yours, etc.,

FREDERIC BEARD.

To the Editor of the GAZETTE

SIR,—I should like to join in your protest against the proposed demolition of the Front Quadrangle. Within recent years Regent Street and Carlton House Terrace have had their characters strangely altered by rebuilding. The present entrance and Front Quadrangle of Guy's is dignified, placid and quietly beautiful, and it is doubtful if a modern building will in any way reproduce these qualities.

I am sure you are right in advocating a long-term architectural policy for Guy's, and I should like to thank you for drawing attention to the suggested alterations which are little short of vandalism.

Yours, etc.,

A. G. TAYLOR.

28, Battlefield Road,
St. Albans.

To the Editor of the GAZETTE

SIR,—If your remarks in "Passim" in the 18th December number of the *Gazette* also include a physiologist working at the other end of Great Britain, I would like to write and support you strongly in what you say with regard to the prospective demolition of the Surgical Block and Colonnade. Allowing for the scientific caution with which I am accustomed to frame my thoughts, I can still think of it only as a disaster of the first magnitude.

Yours, etc.,

J. T. IRVING.

The Rowett Research Institute,
Bucksburn,
Aberdeenshire.

(P.S.—No. 2 seems to be the obvious alternative plan.)

To the Editor of the GAZETTE

SIR,—This letter comes from the heart of one who spent many of the happiest—and certainly his most industrious—years under the hospitable and inspiring roof of Guy's. As a small boy at Westminster School I used to trudge daily in a top-hat (acclaimed in diverse manner by the hierarchy of the Borough) over London Bridge to the Monument, and in later years as a student I lived, worked and enjoyed to the full all

the happiness of a man at Guy's, crossing many times daily the furrow between the Super.'s House and the Front Lodge worn deep by the feet of an illustrious Uncle.

The oldest part of Guy's! The Front Quadrangle and Surgical Block—old then in 1907—and much water has passed under London Bridge even since the advent of the great Sir Arbuthnot Lane's all-glass theatre and associated flock of American sheep studying the technique of the Master Shepherd. Even then the removal of the Front Surgery to that part of the Hospital most distant from the Surgical Wards seemed to me uneconomical and necessitated a wastage of time to the suffering and man-power to the Hospital. It is obvious that with the march of time and development of new ideas of hospital building and equipment the Surgical Block does need reconstructing, but I would plead that it could be done within the limits of its present shell and without detriment to the existing architectural beauty.

Yours, etc.,

DESMOND MACMANUS.

53, Chester Square,
S.W.1.

Sport

Rugby

Guy's v. Devonport Services

(At Devonport on Saturday, December 18th)

GUY'S played a magnificent game and, after taking the lead twice, were beaten by 2 placed goals (10 points) to a penalty goal and a try (6 points).

Both E. S. Nicholson and R. C. S. Dick (who was selected for the Scottish Trials) were unable to play and, considering that the team had to change on the train in order to arrive on the field in time for the kick-off, it will be appreciated that Guy's did extremely well to run their opponents so close.

During the first half it was obvious that they had not recovered from their long journey, but, after the interval, they put up a great display and ran the Services off their feet. Owing to their late arrival it was agreed to play only thirty minutes each way, and there is no doubt that had there been an extra ten minutes, Guy's would have won comfortably.

The match was a triumph for Hughes, the Services' full-back; he was here, there and everywhere, and never gave a point away—in fact, he was the main stumbling-block between Guy's and success.

In the first minutes, following a fine three-quarter movement, Douglas was unable to gather a pass, and Hughes slipped in to clear. However, Allen cut through and Hughes again tackled fearlessly and found touch, but Crawford promptly put Guy's on the offensive when he found touch with a splendid kick, which dropped inside the Services' 25. Bailey saved the situation when he broke through and passed to Casement, but he sent out a wild pass to Doggett, who was unable to take it.

Another attack by the Services was cleverly repulsed by Allen, and Kolesar followed up and dribbled the ball to Hughes, who again cleared well. Guy's were feeling their feet, and a grand three-quarter movement finished with Douglas, who raced down the wing and appeared clear, but Harrison overtook him and soon after Allen tried an unsuccessful drop at goal.

After fifteen minutes' play Guy's took the lead when, in trying to clear his lines, Hughes kicked across, and Hogg was penalised for offside, and Kynaston kicked a goal.

Immediately afterwards Douglas again eluded Harrison, but Dunbar came across and brought him down. From the scrum which followed Hogg broke through and, after good work by Bailey and Dunbar, Casement failed to take a good pass when well placed.

Following a scrum in mid-field, the Services went ahead when Stacpoole slipped through and Bailey, accepting a pass on the reverse side, sailed in under the posts, for Hughes to convert.

The exchanges were fairly even until the interval, although each team attacked in turn. The tackling on both sides was excellent and no attack looked like scoring.

Early in the second half, Devonport started confidently but Guy's soon repelled an early attack and, following a brilliant run by Baxter, who side-stepped two of the defenders, a try seemed certain, but Hughes appeared from out of the blue and brought him down when almost over the line.

However, Guy's kept up the pressure and their efforts were rewarded when Kynaston flashed past Dunbar and Hughes, and when tackled by Harrison passed to Sechiari, who sent in Stanyon-Jacques for a try, which was not converted.

Devonport made desperate efforts to gain the lead, and eventually they succeeded when Bailey gave a perfect dummy and scored under the posts, for Hughes to convert.

After Bailey had attempted a similar effort, Guy's replied spiritedly, and Kynaston lost a good opening when he left the defence standing. Although Douglas was outside unmarked he tried to get through on his own and was tackled.

In the closing stages, Guy's went all out for the decider, but the Services managed to hold on to their slender lead until the whistle sounded for no-side.

Allen, Crawford and Kynaston played a great game for the Hospital, and Crabb, Sharpe, Sechiari and Stanyon-Jacques caught the eye in a hard-working pack.

Team.—J. P. Crawford; A. B. Baxter, P. H. Birks, R. U. F. Kynaston, D. M. Douglas; R. D. Allen, T. H. Eustace; A. J. Drew, R. M. Sharpe, H. H. Crabb (captain), J. R. D. Williams, A. Forbes, G. P. Sechiari, P. D'O. Kolesar, K. A. Stanyon-Jacques.

Guy's v. Old Alleynians

(*At Dulwich on Saturday, January 1st*, 1938)

IN spite of the poor records of both sides, this match attracted a large attendance and, after a hard struggle, the Old Boys recorded their second success of the season by a placed goal and 2 tries (11 points) to 2 tries (6 points).

The Hospital were not quite at full strength, and as Allen was unable to play, Crawford was moved up to partner Eustace and Rowley occupied the position at full-back.

With the advantage of the wind, Guy's started confidently and soon gained a footing in their opponents' 25. Nicholson succeeded in obtaining possession of the ball in most of the set scrums, but Eustace was so closely shadowed by Campbell and Agazerian that he appeared slow in passing the ball to his threes.

Owing to the heavy state of the ground, the players found it difficult to keep their feet in the early stages, but as the game proceeded there was some excellent running by both sides.

After repeated onslaughts in the Old Alleynians' 25, the Hospital were eventually driven back as the result of some excellent touch-finding by Gibson and Griffiths.

A fine run by Kynaston and Douglas on the left wing placed the Hospital in a good position, and Kynaston was nearly over when Campbell came across and tackled him only three yards from the line.

Then came a sudden change. After defending their line for several minutes, the Old Boys followed up a huge kick by Griffiths and, although Douglas and Rowley tried to stem the rush, they were unequal to the occasion, and finally Godfrey gathered and passed to Griffiths, who crossed in the corner.

This snap try was against the run of play, and within a few minutes the Hospital drew level when Dick carved out a splendid opening for Baxter, who only had the full-back to beat. Baxter deceived the full-back completely, and his speed carried him over the line to register a try too far out for Kynaston to convert.

A ding-dong struggle followed up to the interval, and, although Guy's were continually threatening danger, they were marked so well that they could not make much headway against a sterling defence.

Early in the second half the Old Boys tried their utmost to establish an early lead, but Guy's managed to hold out. First Kynaston and then Crawford made individual efforts to break through, but they held on too long and good opportunities went astray.

Just when Guy's appeared to have the upper hand, the Old Boys broke away and their forwards dribbled the ball to the other end of the field, and Winch raced up to gather and score in the corner.

Stung by this reverse, Guy's tried their utmost to find an opening, but they were met by a relentless defence, and gradually they were driven back to their own 25.

From a scrum ten yards out Guy's obtained the ball, and Crawford passed to Dick. The latter sized up the situation in a second, flashed through the centres and, after a magnificent run for three parts of the field, he scored a grand try, which made the scores level.

The excitement was now intense and, encouraged by this success, Guy's pressed continuously. Time after time the ball was passed to the threes, but nothing would go right. Eventually the Hospital started a movement which should have ended in a score, but a lobbed pass was intercepted and the Old Boys pounced on their chance and rushed the ball up-field. They backed up each other splendidly, and finally Agazerian managed to cross the line for a try which Griffiths converted with a fine kick from near the touch-line.

Following this setback, Guy's set up a hot attack, but they failed to seize their chances and had to admit defeat by the narrow margin of five points.

Team.—H. A. Rowley; A. B. Baxter, R. C. S. Dick, R. U. F. Kynaston, D. M. Douglas; J. P. Crawford, T. H. Eustace; J. P. Drew, E. S. Nicholson, H. H. Crabbe, J. R. D. Williams, A. Forbes, K. A. Stanyon-Jacques, R. O. Yerbury, P. D'O. Kolesar.

Hockey

INTER-HOSPITALS CUP

THE second round tie against St. Bartholomew's Hospital will be played at Honor Oak Park on Tuesday, January 18th; bully-off, 2.30 p.m.

Last year at our Cup Tie against St. Thomas's Hospital their supporters outnumbered our supporters by fifty to one. Only three Guy's supporters were present, one of them, we are grateful to say, being our President. We lost that Cup Tie after extra time; with adequate support from the touch-line we would have won. Don't let that happen again this year, Guy's!

Hockey supporters and others, come along and support your team! The team will do its best, but its best can only come with support from the touch-line. We can assure spectators of a keen and excellent game, and if you come your time will not be wasted.

Wake up, Guy's, and catch the 1.53 p.m. train on Tuesday, January 18th!

Results.—

v. Gravesend (home), Wednesday, 5th January, won, 5—2.

v. West Herts. (home), Saturday, 8th January, draw, 2—2.

Record to date.—

Played, 18; won, 12; drawn, 2; lost, 4. Goals for, 74; goals against, 33.

Fencing

ON Saturday, November 20th, a three-weapon match was fought in the Gym. against Bart.'s.

The Hospital were without R. F. Parfitt, who was busy in competitions elsewhere. The Bart.'s team contained the last inter-hospitals' epée champion and also one of the inter-hospitals' foil finalists.

The Foil was evenly contested, but Bart.'s managed to win by five fights to four. Baynes, their expert foilest, was undefeated, whilst for the Hospital both Hacon and Hudson Evans won two out of three.

The Epée was won by Bart.'s by the same margin and Morrell, of Bart.'s just managed to win all his three fights. The Hospital team fought very well with the weapon. Hudson Evans won two out of his three fights, and Brown, fighting for the Hospital for the first time this season, was unlucky only to win one out of three.

At the beginning of the Sabre, the Hospital were two fights down. This meant that we could not afford to lose more than three of the remaining nine fights.

After six fights had been decided, the Hospital had only lost one. This left us with only one to win out of the remaining three. Bart.'s won two of these, but Lane-Roberts, who was undefeated, put the issue beyond doubt by a decisive win over Middleton, of Bart.'s. So we won a close match by fourteen wins to thirteen.

Ice Hockey Club

ON Thursday (25th) yet another match was played by Guy's Hospital. This time against Barclays Bank.

The two teams were very well matched; if anything, I felt that Barclays Bank deserved to win. The standard of play was good. A few played well above their usual standard. Gayes, I think, was the most outstanding example. Once or twice he was lucky, but on the whole he played a very creditable game. Well done!

The first goal was scored by Head soon after the commencement of the game, our opponents netting by return of post, so to speak. The second goal was scored by Hancock. Receiving the puck on the right wing, he passed down to his corner, where he turned in sharply, passing in front of goal. Here he completely baffled the goal-minder, to net in the left corner. The third goal was scored by Lee from an assist by Head. At half-time the score remained 3—1.

The second half almost proved our downfall. Twice they scored and several times looked as though they could not help but score.

Wood, as goal-minder, played very well indeed. In the second half he undoubtedly saved the game.

The resulting score was 4—3 for Guy's. Well done, boys; keep it up!

I. W. R.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Hospital Information, etc.

Notice

DENTAL SOCIETY ANNUAL DINNER

The Thirty-ninth Annual Dinner of the Guy's Hospital Dental Society will be held on Saturday, March 5th, at 7 for 7.30 p.m., at Grosvenor House, Park Lane, W.1. (Nearest station, Marble Arch.)

A Clinical Meeting, consisting of a Morning and an Afternoon Session, will be held in the Dental Department on the same day, to which all past and present students are invited. Demonstrations will be given by members of the Staff, and cases of clinical interest will be shown. The Morning Session will commence at 10.30 a.m. and the Afternoon Session at 2.30 p.m.

F. BOCQUET BULL,
Sub-Dean of the Dental School.

MONTAGU MALLESON,
Hon. Secretary of the Dental Society.

Pass List

UNIVERSITY OF LONDON.

SECOND EXAMINATION IN DENTAL SURGERY.

PART I.

December, 1937.

H. A. Hall
W. E. Jackson
K. B. Lole
R. C. D. Morrell
A. Stone

The following Students are credited with Anatomy and Physiology.

J. F. Mordaunt
D. G. E. Roberts
G. W. Sawyer
C. Sumsawaste
D. Wright

SECOND EXAMINATION IN DENTAL SURGERY.

PART II.

A. Walton.

THIRD (B.D.S.) EXAMINATION IN DENTAL SURGERY.

December, 1937.

R. L. Kenyon.

UNIVERSITY OF CAMBRIDGE.

FIRST EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

December, 1937.

PART II.

Physics.

D. A. L. Ward.

PART IV.

Organic Chemistry.

F. S. Mellows.

UNIVERSITY OF LONDON.

FIRST EXAMINATION FOR MEDICAL DEGREES.

Internal Students.

December, 1937.

V. Y. Bochner
R. K. Haslam
T. Koonvisal
M. J. May
J. B. Musgrove
H. B. F. Ordish
H. F. Osmond
T. W. Renton
J. Ronchetti
M. N. Teubes
J. Wilks
L. P. J. Wright

External Students.

O. M. Jonathan
J. D. Paulett

Papers by Guy's Men

P. M. F. Bishop. The use of pituitary preparations. *Practitioner*, 1938, cxl, 38.

R. E. Rix. Some useful orthodontic appliances. *Brit. Dent. Jour.*, 1938, lxiv, 13.

Sir Arthur Hurst. The pathogenesis of carcinoma of the stomach. *Clin. Jour.*, 1938, lxvii, 9.

P. M. F. Bishop. Facts and fallacies in clinical endocrinology. *Clin. Jour.*, 1938, lxvii, 17.

A. Arnold Osman. General considerations concerning the management and treatment of patients suffering from Bright's disease. *Post-Grad. Med. Jour.*, 1938, xiv, 10.

Philip Turner and Another. Multiple pyæmic abscesses in scarlet fever; operation; recovery. *Proc. Roy. Soc. Med.*, 1937, xxxi, 70 (Sect. Study Dis. Childr.).

Philip Turner. A patient sixteen years after an operation for acute diverticulitis. *Ibid.*, 114 (Clin. Sect.).

N. M. Jacoby. Pick's disease. *Ibid.*, 115 (Clin. Sect.).

R. W. B. Ellis and Another. Tuberculous epididymitis in a boy aged nine, with pulmonary infection of three younger sibs. *Ibid.*, 118 (Clin. Sect.).

G. B. Dowling. ? Darier's sarcoid. *Ibid.*, 85 (Sect. Dermat.).

Appointments

R. S. Bruce-Pearson, appointed Physician to Out-Patients, Hampstead General and North-West London Hospital.

A. Gordon Signy, appointed Pathologist, Infants' Hospital, Vincent Square, S.W

Changes of Address

A. M. G. Campbell, D.M., M.R.C.P., Inverawe, Droitwich Spa, Worcestershire. *Droitwich Spa* 2215.

Births

PLOWRIGHT.—On December 30th, 1937, to Mary, wife of Oliver Plowright—a son.

Marriages

CAREW-JONES—ROGERS.—On December 18th, 1937, at St. John's Church, Sidcup, Eric Carew Jones to Winifred D. Rogers, eldest daughter of Mr. and Mrs. F. Rogers, of Holbrook, Ipswich.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

WE would draw the particular attention of our readers to the letter we print this week from the Superintendent of the Hospital on the subject of the rebuilding of the Surgical Block and the threatened demolition of the Front Quadrangle. This letter arrived as we were going to press, and consequently we are able only to say that we are sure the assurances he gives that all the aspects, including the æsthetic and sentimental, of this most important problem are being considered before embarking on any scheme will be welcomed by all our readers.

SEVERAL times in the past we have published both in "Passim" and in our correspondence columns articles exposing conditions as they exist in the College, in the ever vain but glorious hope that something might be done to alleviate the suffering of its habitants. Apart from redecorating the Reading Room and the "Spit" we have seen no real improvement in our time —we must, of course, except that painful period when several workmen spent week after week on the roof making an appalling din, presumably in an attempt to prevent the whole structure from collapsing around our heads. The Housemen continue to work hard with long hours and little spare time under conditions as depressing as they are unhealthy, protesting with weak voices unheard amongst the babble of the great ones talking of preventive medicine, ideal conditions, sunlight, national fitness, etc.

Once again, therefore, we would take up our pen to defend these poor unfortunates condemned to live in such unsavoury surroundings. Let us for a moment analyse some aspects of College life that would appear to merit consideration from those in authority.

The College, in the first place, appears from outside like some brooding, sinister, empty place conjured up in the feverish imagination of a nervous child—a thing to make one cringe before entering its portals. On the inside these fears are fully realised, for here it is so cheerless, so cold and dark that the very thought of living there is horrible—so dark are most of its passages that it is no uncommon sight to see newcomers moving like blind men feeling their way along the walls.

The rooms themselves are pitifully small, ill lit, badly ventilated, and heated by out-of-date and uneconomical gas fires. In many the windows will not open properly, and were they to open little air could waft in so closely are they built upon. The decoration is drab and colourless, the furniture meagre and consists only of the bare necessities.

There are four baths and one shower, the plumbing being so inadequate that the waste water fills the bathroom floor with a greasy messy wash in which the bather must paddle and stand to dry himself. One only of the bathroom windows opens to allow of the escape of steam condensed from one of the very few real pleasures in the College—a constant supply of hot water.

For the sole use of the sixty inmates there are nine water closets. One at least of the residents may be seen any morning coming up from his bath dressed in trousers and overcoat —he cannot stand the icy blasts whistling through that ever-open door leading to the College Quadrangle.

The Reading Room is ridiculously small for the number of people who wish to use it. At

lunch time it is difficult to gain admittance, so large are the numbers having to stand around the doors for lack of seating accommodation. We have seen as many as thirty men mouching disconsolately about this room, waiting for the opportunity of a seat in the Dining Room, and often faced with the dilemma of forgoing their lunch or missing a clinical lecture which starts at 1 o'clock, with nowhere to sit, nowhere to eat, and nowhere to relax even for a few minutes. These are conditions which would not be tolerated in a factory, where the workers' health is an asset to be jealously preserved, or indeed found even in Salvation Army Shelters for " down-and-outs."

The passages leading to the Dining Room and " Spit " are an unsightly shambles of coats, hats and bags waiting to be stolen by anybody—there is no proper place to put these things and no one to look after them.

These are some of the discomforts that those who live in the College are having to face every day of their lives. One half of the occupants have no choice as to where they live, for the resident house officers, servants of the Hospital, must reside there. The other half for some reason choose this as their temporary home.

All of them are destined to become " doctors," and in that capacity will be in a position to advise the nation as to the betterment of its health.

The obvious and correct solution to these very real problems is to raze the present building to the ground and reconstruct one embodying all those principles of health and reasonable comfort to which we have become accustomed in our own home surroundings. We believe that the state of health of any community depends much more upon its everyday standards of living than upon its facilities for sport and exercise, and especially is this so amongst a group of people who have comparatively little time in which to relax and who will choose to get away from the Hospital confines whenever this chance offers itself.

We are prepared to have a long wait for the building of a new College, but we do not believe that this interim should be used to do exactly nothing at all about present conditions; rather should it be our aim to make the existing building as habitable as is humanly possible until the excrescence can be entirely done away with. It is a difficult problem admittedly, but we have a few suggestions to make which we think would help.

The College is principally intended for the housing of the Residents. These number seventeen, but apart from these there are thirteen more who must also live there. These are three " externs," two " take-in " ward clerks, two " take-in " gynæcological dressers, and six Assistant House Physicians, which brings up the total to thirty. There is, we believe, accommodation for some sixty persons in the College, and the remaining thirty rooms are occupied by students who prefer to live there rather than in rooms in the Borough. Why this preference should exist we are unable to say, but we believe that if the interests of some of these were sacrificed to the good of the few who *have* to live in the College and the many hundreds who use the Club, a better state of affairs could be achieved for the latter.

Leaving aside for a moment questions of cost, we believe that the following practical steps might be taken to improve the College without embarking upon a programme of important structural alterations. Firstly, two bedrooms on each floor could be sacrificed to the provision of two bathrooms for that floor. Secondly, a room could be provided on the ground floor to be used as a cloak-room. Thirdly, the additional space needed for sitting and reading could be obtained by taking over and redecorating the Pavy Gymnasium. This would, of course, entail finding temporary accommodation for the gymnasts elsewhere, and, failing better suggestions, why should they not be provisionally housed in the old Pathology Block after the impending evacuation?

Apart from these major suggestions we would propose that the plumbing throughout the building be thoroughly overhauled and repaired in order to end the irritating and entirely unnecessary " paddy fields " appearance. The corridors might have better lighting, even though it be artificial, the windows could with little expense be made to open; the antiquated fires might be replaced by modern and more efficient articles probably using less fuel and heating more uniformly.

We fear at this point that our constant readers will shake their heads and meditate along the following lines: " Yes, we know all that already. Wasn't it two years ago that you ran a prolonged campaign for the betterment of conditions in the College, and was anything done? We remember a sub-committee was appointed to consider the whole question. What has become of it? We are afraid that the difficulties are too great, and the money would never be forthcoming. No, the situation is hopeless, and we will just have to accept it!"

Well, we don't know how the majority of

students and Residents feel about this question, but we warrant that a very large number agree with us that the present position is quite intolerable and *must* be changed somehow. In fact, we believe that the only way to face this problem is for one and all to decide that something, regardless of difficulties, *shall* be done. It is not as if the College and students' club was a charitable institution. The rooms we sleep in are paid for at a reasonable figure, the meals we eat are provided at a cost which enables the Catering Company to remain solvent. We pay five guineas a year to the Clubs' Union, part of which is allotted to providing us with a Club. If this sum is not sufficient, two measures are possible; either the sports facilities should be curtailed and a larger share allotted to the College, or the subscription rate should be raised to provide the money needed—anyhow to those men who take part in the sporting events. Quite a large number of students who, for one reason or another, are precluded from playing games are in the position of obtaining literally nothing in return for their subscriptions.

In these days of financial crises it is, perhaps, too much to hope that we shall obtain a new College in the near future, but we see no reason why we should continue to suffer a state of affairs which has existed much too long and which we believe lies in your power to terminate.

THIS year the Residents' Ball is to be held at the Grosvenor House, Park Lane, on Friday, March 11th. Dance music will be supplied by Sidney Lipton and his band, and this year there will be no cabaret to interfere with the serious business of the evening.

We appeal to everybody to come along, and, if possible, bring large parties to a function which we are certain will be a social success, and we fervently hope will be a financial success also. This wish comes straight from the heart of the Residents' Fund, which, we may say, shows unmistakable signs of weakness if not frank failure. Rightly or wrongly, the Residents have to rely on the profits from this Ball to bolster up their fund, which is sadly depleted by the calls upon it of the Play. We do therefore ask all our readers to rally round and we would also give you our assurance that the committee will do their utmost to give you "the time of your life." Tickets are one guinea each, and application should be made to Mr. Angus Smith, The College, Guy's Hospital, S.E.1.

WE would remind our readers that the Annual Subscription to the *Gazette* and *Directory of Guy's Men* (*Medical and Dental*), 12*s.* 6*d.*, post free, is now due, and should be forwarded to the Manager, the *Gazette* Office, Guy's Hospital, S.E.1.

WE profoundly regret the death of our colleague and friend Earle Gill-Carey, at the early age of 30. We print elsewhere an obituary, but feel that we would like to express in these columns our own deep personal sorrow at the loss of so charming a colleague. It was a happy combination of conscience and cheerfulness that made him so irreplaceable as a friend and so valuable as a Resident. We would offer to his family our sincere sympathy in their terrible bereavement.

Obituary

DR. E. GILL-CAREY

ON Sunday, the 16th of January, the death occurred in Addison private room of Earle Gill-Carey. Less than a week before he had, in apparent health, been engaged in the active pursuit of his duties as house physician when he had contracted the acute and virulent pneumococcal infection which lead to his death. And thus is added another to that unhappy toll of hospital residents who, towards the end of their house appointments, have acquired a disease which their resistance has then been totally unable to combat.

It is typical, too, of these tragic deaths that the personality is one which the Hospital and residential body would least choose to lose. In his nine years at Guy's, through Medical School, the wards and house jobs, an extraordinarily wide circle of contemporaries and seniors had come to recognise and enjoy that easy, tolerant and infectious humour which, cloaking a sound, sympathetic judgment, made him the most agreeable companion and friend.

Earle Gill-Carey was born in 1907 at Wanganui, New Zealand, the second son of the late Mr. T. C. Gill-Carey and of Mrs. Beatrice Gill-Carey, of St. John's Wood. Through his mother he had many family connections with medicine and with Guy's—a grandfather, R. Earle, an uncle, M. Earle, and a brother, C. Gill-Carey, were all at the Hospital. He was educated at Wanganui

Collegiate School, and in 1929 came to London to follow his brother at Guy's. In October, 1936, he qualified M.R.C.S., L.R.C.P., during tenure of the now extinct appointment of Clinical. That peculiarly Guy's institution, Clinical, with its emphasis on the more academic aspects of medicine and freedom from responsibility, could not provide as good scope as a full house appointment for those qualities of tact, common sense, ability to control patients and inspire confidence in them, which Gill-Carey possessed to a marked degree. His success, when given a field for their exercise, in his next appointment as house-surgeon to Mr. Mollison in Ear, Nose and Throat Department was recognised both in his election to the Vice-Presidency of the Residents and his reappointment at its termination to the general sequence of house jobs, leading up to the full appointment of house physician to Dr. Mutch. This last post he had held for the two months over Christmas, which added the "Niggers," the preparations for the play and their attendant rigours to the already strenuous round of official duties; and in his work there were no half-measures with him.

Death in early adult life has always its attendant tragic circumstances. On this occasion there is, apart from the deep personal loss to his relatives, a wider but no less tangible deprivation. No institution or country can lightly lose such representatives. Here was a man of character and charm who at the end of nine years' special training was shortly to continue the practice of medicine outside the Hospital, which could always rely on him to uphold its worthiest traditions; here, too, it could be said, was a New Zealander whose personal contacts in England would only strengthen feelings of regard here for his country.

AN APPRECIATION

Gill-Carey was one of those fortunates who had the art of cheerfulness and was able to pass it on to others, friends and patients, and this naturally endeared him to his contemporaries and seniors. He was at the same time most hard-working, always interested in medicine; he gave endless time and care to the patients and many owe health and life to that care. Truly he exemplified the Hospital motto—*Dare quam accipere.*

W. M. M.

Eye Disease and its Relationship to General Medicine

A Paper read before the Physical Society by J. H. Smart, Esq.

MR. CHAIRMAN and GENTLEMEN,—In preparing this paper, my original plan was to work through the subject of general medicine, collecting any material which might have any bearing on the subject of ophthalmology, and to mould it into a paper. Though from your point of view this would, I think, have been the ideal way of tackling the subject, from my point of view it was far from ideal, as it might almost be compared to a "Labour of Hercules." So I have decided to take the "line of least resistance," and, considering the eye, structure by structure, have attempted to describe briefly some of the conditions that may affect it, with special reference to medical disease as causative factors; also with reference to the assistance in diagnosis and prognosis that the various conditions of the eye can offer in such diseases. As this obviously still covers a wide range, I shall have to miss out many of the details, and be content with reminding you of conditions rather than explaining them in any great detail.

One of the first conditions which comes to mind where the eyes are affected in a general systemic disease is that of Graves' disease. In this, one of the commonest signs is that of bilateral proptosis, which is indeed so common as to have given the disease the alternative name of exophthalmic goitre. The cause of this proptosis is uncertain; it may be due simply to an increased amount of orbital fat, pushing the eye forwards, and this has actually been demonstrated, or–and this seems more likely—it may be that the cervical sympathetic is stimulated or irritated by the enlarged thyroid gland in its immediate neighbourhood, thus causing increased tension in the unstriped muscle of the orbit, which pushes the eye forwards. The palpebral fissure is thus enlarged, so that when the eyes are open, scleral tissue can be seen between the cornea and the lids. It is also found that the upper lid lags behind when the eyes are lowered—Graefe's sign—and the lower lid lags behind when they are raised—Kocher's sign. There are several other signs relating to the eyes in this disease, but these are the most useful of them, and they may be of great assistance in diagnosing the condition, particularly when the signs of toxicity are not marked.

Exophthalmos is also present in cases of cavernous sinus thrombosis. Frontal headaches,

drowsiness, interference with vision and high pyrexia are usually found, and there is congestion and œdema of the lids. Such a thrombosis is more likely to result from a boil or pustule in the region of the nose than from an open septic wound, as the pus is present under tension in the former case. Ptosis, or drooping of the upper eyelid, squint and ophthalmoplegia later develop as the third, fourth and sixth nerves are affected as they pass through the cavernous sinus on their way to the orbit. Orbital cellulitis later develops, and meningitis which causes the patient's death.

Orbital cellulitis, which may be secondary to nasal or dental infection, will also cause exophthalmos, as also will orbital periostitis, which is usually of syphilitic origin. The ophthalmoplegic eye is also proptosed, because the normal restraining influence of the muscle tonus is lost as a result of the paralysis.

ENOPHTHALMOS

The reverse condition—enophthalmos—is not met with nearly so commonly as exophthalmos. It is caused by a lesion of the sympathetic supply to the eye, paralysing the unstriped muscle of the orbit, and so allowing the eye to fall back into the orbit. It is interesting to note that enophthalmos, partial ptosis, and contraction of the pupils may occur in syringo-myelia. In this disease elongated cavities are formed in the spinal cord, as a result of new growth and degeneration. The cervical enlargement, which extends from the third cervical to the second thoracic segments, is the part most commonly involved. In addition to the eye signs there is atrophy of the muscles of the hand and forearm, loss of tendon jerks, and loss of sensibility in the arm to painful stimuli. The reason for these changes is obvious, but the eye signs are not so easily accountable, unless it is realised that the signs mentioned are all the result of loss of sympathetic supply to that organ. The sympathetic supply to the eye takes a very roundabout course, being derived from the first and second thoracic roots, passing up the cervical sympathetic chain, and ultimately reaching the ciliary ganglion in the orbit by way of the carotid plexus. Disease of the cervical enlargement will, therefore, give these signs of sympathetic lesion, and, in addition to these, there may be vaso-dilatation of the vessels of the head and arms from paralysis of the constrictor fibres, and inhibition of sweat and salivary secretions. These signs may also be useful in localising injuries of the upper thoracic roots and brachial plexus.

Syringo-myelia may extend upwards or downwards in the cord, and when it reaches the pons and medulla it will cause nystagmus and diplopia from involvement of the sixth nerve.

EYELIDS

In considering the eyelids, a useful sign is that of ptosis, which, as already stated, is a drooping of the upper eyelid. The normal mechanism for maintaining this lid raised is the tonus of the *levator palpebræ superiores*, which is supplied by the occulomotor nerve. This is not a pure striped voluntary muscle, but contains also some plain muscle fibres which are innervated by the sympathetic. As already stated, a lesion of the sympathetic results in partial ptosis ; or if a person has poor sympathetic tone, as when they are very fatigued, the tone of the plain muscle diminishes and the eyelids droop—a condition with which most of us are not unfamiliar. Thus the eyelids can give some valuable information as to a patient's general condition : we all know, to our cost, the typical face of " the day after the night before."

Ptosis is one of the earliest signs of myasthenia gravis. This is thought to be primarily a disease of muscles, probably of toxic origin. The muscles of the eyes, face and neck are the ones usually affected, so that the patient complains of double vision, difficulty in mastication, and dysphagia. The disease is progressive, and is aggravated by such things as emotional upsets, menstruation and cold, terminating fatally from choking or respiratory paralysis, in a variable time, but within ten years of the onset.

Tabes is another cause of ptosis, but in this condition it comes on rather later. It results from damage to the 3rd nerve ; but more will be said about this later on, when we come to discuss the iris. In the late stages of diphtheria, paralytic ptosis may develop, often associated with a facial paralysis. It is the result of the diphtheria toxin acting on the peripheral nerve endings, and has nothing to do with the central nerve connections. It occurs between the fifth and eighth weeks of the disease, and usually clears up completely after a week or two. Both the ptosis and the facial paralysis, however, are rare.

Ulcers on the eyelids are quite often encountered. They are of two common types, one being syphilitic and the other the rodent ulcer. The syphilitic ulcer may be a primary or tertiary manifestation, and may occur anywhere on either lid. The lymphatic glands—the pre-auricular and submaxillary groups—are enlarged, particularly in the case of the primary chancre. The tertiary ulcer is caused by gummatous infiltration of the tarsal plate, with local ulceration and secondary infection of the overlying skin. The rodent ulcer very rarely occurs on the upper lid, its commonest

situation being on the lower lid at the inner canthus. There is no associated lymphatic gland enlargement with this ulcer. The treatment of the rodent ulcer may prove difficult, particularly if excision is impossible; in this case probably the best treatment is freezing with carbon-dioxide snow.

LACHRYMAL APPARATUS

The commonest symptom of disease of the lachrymal system is epiphora, or the overflowing of tears, so that they run down the cheeks. This may be due to a facial paralysis, making it impossible to blink away the tears, and allowing the lower eyelid to sag so that the puncta are not in contact with the conjunctiva as they should normally be. Obstruction of the naso-lachrymal duct is probably the commonest cause of epiphora —apart from excessive stimulation to the lachrymal gland, as by a foreign body in the eye. The obstruction may be caused by neoplastic processes about the duct, or by chronic inflammation with stricture formation, particularly if it is of syphilitic origin. In such cases the lachrymal sac gets more and more distended, and sooner or later becomes infected and forms a lachrymal abscess, which may burst on to the skin. It is a dangerous condition, because any slight corneal abrasion, as by a foreign body, readily becomes infected and ulcerates, and may cause serious interference with vision. Epiphora is sometimes seen in infants; it does not signify congenital syphilis, but is usually caused by obstruction of the duct by epithelial debris, and it can easily be cleared by syringing.

The lachrymal glands may show chronic, painless, bilateral enlargement, with no discoverable systemic disorder, or other factors, to account for it. This is known as Mikulicz's syndrome, described by him as affecting essentially the glands of the head—the parotids, submaxillaries and lachrymals being the ones most commonly involved. The condition is still unexplained, though various people have tried to lay it to the charge of syphilis, tuberculosis, gout, and leukæmia. The latter seems the most likely cause, and Thursfield has described cases where the condition was associated with definite leukæmic blood pictures, enlargement of the spleen and lymphatic glands, and a fatal termination. Furthermore, undoubted cases of leukæmia have been shown to develop the Mikulicz phenomenon, and some have actually started the disease with enlargement of the lachrymal glands as the first sign. The only objection is that these cases are not the true Mikulicz syndrome, for in them there is a demonstrable systemic disorder in the abnormal blood pictures. The treatment of the condition is to remove all possible source of infection, improve the general health, and give as much arsenic as possible, with X-rays to the swellings.

CONJUNCTIVA

The conjunctiva has little to offer that is of assistance in diagnosis to the surgeon or physician, but the most important conjunctival ailment for the general practitioner is purulent conjunctivitis, or ophthalmia neonatorum: 80 per cent. of these cases are caused by the gonococcus, the infant being infected in its passage through the maternal birth canal. The remaining 20 per cent., which are relatively unimportant, are caused by Koch Week's bacillus and *bacillus coli communis*. The best treatment is prevention, and this is done in the usual way, by wiping the infant's eyes as soon as the head is born, and later dropping 1 per cent. silver nitrate into the eyes and washing out with boracic lotion. In cases which are already established, however, the treatment should be left in the hands of those who are specially trained for the purpose, as in the special L.C.C. hospitals. It is interesting to note in connection with this condition that the leech, as used by our forefathers, still has its uses, for if applied to the temple or outer canthus it can be extremely valuable in reducing the severe congestion. Conjunctivitis in the new-born is a notifiable disease.

In adults, gonococcal conjunctivitis presents a similar picture to that seen in infants, but the symptoms are of much greater severity. It usually results from direct contagion, being carried by the fingers from the urethra. It is quite common, therefore, for one eye only to be affected, in which case great care should be taken to preserve the other, by covering it with the well-known Buller shield and taking all other possible precautions.

Both in the child and in the adult the great danger of gonococcal conjunctivitis lies in the fact that the cornea may become permanently damaged, with serious impairment of vision, or even blindness. The cornea receives no direct blood supply, except at the extreme periphery, but is dependent for nourishment upon the diffusion of lymph which is supplied from the conjunctival vessels. The extreme degree of chemosis of the conjunctiva which occurs in this condition, therefore, threatens the corneal nutrition, and with such virulent organisms as the gonococcus in its immediate neighbourhood it is surprising that the cornea does not rapidly become the seat of a large perforating ulcer. In some cases the cornea does indeed become ulcerated, and should then be treated with carbolic, or with the electric cautery, and if it threatens to perforate,

section of the cornea may be advisable. If it does perforate, the iris gets washed out through the opening by the escaping aqueous, and it later heals with the formation of a dense white scar to which the iris is attached—the so-called "leucoma adherens." Later this scar may bulge from the intra-ocular pressure, producing hideous staphylomata, which may burst and are best removed. Other sequelæ are anterior polar cataract, conjunctival scarring and nystagmus. In the treatment of this condition vaccines can be used, and it will be interesting to hear whether the new gonococcal antiserum is of any value.

Membranous conjunctivitis results from inflammation of such severity that the surface layers are destroyed and can be peeled off. This inflammation may be caused by powerful chemical irritants, for example: 2 per cent. silver nitrate will destroy the surface epithelium; or by virulent micro-organisms such as the streptococcus brevis or the Klebs-Loeffler bacillus. In the case of diphtheritic conjunctivitis the constitutional symptoms are well marked. The local inflammation is so intense that the mucosa is destroyed, but remains *in situ*, mixed with fibrinous exudate, forming a false membrane which can be stripped off to disclose a raw bleeding surface. The lids are hyperæmic, hot and tender, and so hard and swollen that they are parted only with difficulty. The discharge is profuse, serous and bloodstained, and may later become purulent. As mentioned before, there is great danger to the cornea, and subsequent blindness is to be feared. Children are most often affected, and the disease runs a rapid course, causing great prostration, and sometimes having a fatal termination. In these diphtheritic cases the antitoxin is invaluable, while in the other cases a vaccine may be used, but usually without any great success.

SCLERA

The sclera is affected in some general conditions which are rather interesting. It has been rather a puzzle why the condition known as "blue sclerotics" should be associated with the disease *osteogenesis imperfecta* or *fragilitas ossium*. The blueness is the result of the pigment of the uveal tract showing through a thin and attenuated sclera, and it is seen very frequently in quite normal children, but never is it so intense as in the child suffering from *fragilitas ossium*. Recent work has suggested that the nutrition of the sclera is greatly affected by the blood calcium, and that when there is a deficiency of calcium the sclera becomes weakened, and may alter its shape as a result of intra-ocular pressure and other factors with the development of myopia. Although in *fragilitas ossium* there is apparently no fall in the serum calcium level, there is undoubtedly some abnormality of calcium metabolism which causes the increased fragility of the bones, and probably causes malnutrition and underdevelopment of the sclera, so that it is thin and therefore appears blue.

There are two types of inflammation of the sclera, episcleritis and scleritis. Episcleritis is a patch of inflammation of the surface tissues, usually in the region of the ciliary body, with exudation, injection of blood vessels, and tenderness, etc., the area being quite small, usually about the size of a lentil. It occurs mostly in women following sedentary occupations, also in elderly people of rheumatic or gouty tendency, or in tuberculous or syphilitic patients. There is almost invariably the factor of general debility. Auto-intoxication from a septic focus such as the teeth or in the alimentary canal usually seems to be the precipitating cause. Treatment should be directed largely against the general condition, salicylates or iodides being given.

Scleritis is a very similar condition, but is much more severe, larger areas of the sclera being involved, and there may be associated anterior choroiditis, iritis, and even keratitis, so that severe impairment of vision may result. Its ætiology is practically the same as for episcleritis, except that young adults are the most common subjects. It may arise as an episcleritis which slowly progresses to a scleritis, the difference being only one of degree. The treatment is the same as for episcleritis, a complete and thorough search for focal sepsis being made. In cases in which the tubercle bacillus is suspected, tuberculin treatment may be efficacious.

CORNEA

Affections of the cornea are almost completely in the province of the ophthalmic surgeon, so we will only consider a few of the more general points. Firstly, corneal ulcers: these are of many types—there is the suppurative and non-suppurative ulcer, the chronic phlyctenular ulcer, the serpiginous ulcer, the dendritic ulcer, and so on. The point of interest about these ulcers lies in their ætiology. Firstly, the individual affected is typically undernourished, dirty, and usually a child suffering from chronic ill-health. Secondly, the causative organism and its relationship to the tissues—the organisms are nearly always introduced from without, and the only organisms that are known to be capable of invading the corneal epithelium are the gonococcus and the diphtheria bacillus. Other organisms, however, can produce ulceration following an abrasion or other favourable

occurrence, and of these the most notable is the pneumococcus. In considering the tissue resistance, Parsons says, " Pathogenic organisms of high virulence are not always present in the conjunctiva sac, and if they are, the resistance of the normal tissues has to be taken into account. It is too often forgotten that normal tissues with a healthy blood supply and lymph flow, are well armed against any but the most virulent invaders. Even with these, prolonged contact is usually necessary." It is just as well that there is such a tissue resistance, for small abrasions are exceedingly common with the cornea in such a prominent position. Apart from actual abrasion, there are many causes of diminished resistance of the epithelium, such as drying from prolonged exposure, as in exophthalmic goitre, when the lids remain partially open as a result of the bulging eyes, or in states of coma, when the lids are not necessarily completely closed. Necrosis from deficient nutrition, or desquamation as a result of œdema, or loss of nerve supply associated with trophic changes, are all causes of lowered resistance in the cornea.

In all acute facial eruptions there is risk of corneal involvement, either by the eruption appearing on the conjunctiva or by pus from the eruption getting into the conjunctival sac. It is said that in measles and scarlet fever, a superficial punctate keratitis may develop, and this is supposed to account for the liability to the subsequent corneal ulceration that may occur. Also in smallpox there is grave possibility of corneal ulceration and subsequent blindness.

Of all the conditions of the cornea, interstitial keratitis is the most interesting. It occurs commonly between the ages of five and fifteen, and is about twice as common in girls as in boys. Its onset is usually heralded by irritation and lachrymation, and soon cloudy opacities develop in the substance of the cornea. They arise at several points and enlarge, fusing together, and slowly advancing towards the centre, until finally, after about two to four weeks, the whole cornea appears " steamy," or like ground glass. While these opacities are developing, vascularisation is also taking place, radial bundles growing into the cornea from the periphery. As they overlie the hazy cornea, these vessels have a strange effect; they are too small to be seen individually, but they form peculiar light-pink patches, which are called " salmon patches." The reason for this vascularisation is that the normal lymph supply to the cornea is insufficient in its diseased condition, so that blood, carrying with it protective substances, has to be supplied to it. After about six weeks the acute stage passes off and the cornea begins to clear, commencing at the periphery and slowly working towards the centre. The process is slow, but is usually complete except in the very severe cases. The new blood vessels, however, are there permanently, remaining as fine opaque lines, though they soon cease to carry blood. The disease is nearly always bilateral, though there may be an interval of three to four weeks before the second eye is affected.

The disease is a syphilitic manifestation, most commonly resulting from congenital syphilis, and frequently accompanied by the presence of Hutchinson's teeth; but also it occurs in acquired syphilis, and (according to Parsons) this is more frequent than is commonly supposed, and is then usually unilateral, occurring about two years after the primary infection. It very often follows a blow, or operation on the eye, which presumably lights up the condition in a predisposed person.

The pathology of the condition is a little uncertain, and is therefore the more interesting. On examination, the corneal epithelium appears hazy from œdema, and there are cloudy opacities from infiltration of the deep layers of the substantia propria which lie just in front of Descemet's membrane. Precipitates, or K.P., are sometimes seen on the back of the cornea in the early stages, suggesting that there is also some degree of cyclitis present; and anatomical examination has shown that in the true interstitial keratitis of congenital syphilitic origin, the uveal tract is profoundly affected. Similarly in tuberculous iritis it is not uncommon in the later stages to develop interstitial keratitis, which is fundamentally the same as the syphilitic variety.

It is thus the rule for severe iritis to be present, and sometimes cyclitis, as shown by the K.P., and not infrequently there is choroiditis, for if the second eye is carefully examined, patches of anterior choroiditis will not uncommonly be found. Thus, although at first it appears to be primarily an inflammatory lesion in the cornea, it is actually a secondary lesion to a severe irido-cyclitis, which is masked by the opaque cornea, as if it were Nature's method of cutting out the light, and so resting the inflamed iris and ciliary body. It is most essential to realise the true pathology, especially from the point of view of treatment.

Anaphylaxis is also said to play a part in the pathology, and may account for the occurrence of the condition in the second eye after a latent period.

Interstitial keratitis has also been attributed to malaria, trypanosomiasis and myxœdema, and Parsons claims that it frequently occurs in fox-hounds and other highly-bred dogs, and he has seen it in dogs after the thyroid has been removed.

The treatment is not very important as far as this paper is concerned. The local treatment should, of course, be directed to avoiding the deleterious effects of irido-cyclitis rather than of the keratitis, so that atropine is given as a routine to rest the ciliary body and iris, and prevent the formation of posterior synechias. For the general treatment, mercury, iodides and arsenicals can all be tried, but they are of little avail. Thyroid gland extract has proved serviceable in some cases.

IRIS

There are many causes of iritis, as well as an "idiopathic" form. Syphilitic iritis used to occur in 3 to 4 per cent. of syphilitic patients, and this accounted for 25 to 30 per cent. of iritis. It is less common nowadays, however, as the result of earlier and more efficient anti-syphilitic treatment. There are two types. The plastic form is generally unilateral, but the second eye is affected later in about one-fourth of the cases. It occurs between the ages of twenty and forty, males being more often affected than females. It may also occur in congenital syphilis, and be accompanied by interstitial keratitis, as already stated. The other form is the gummatous iritis, in which multiple yellowish-red nodules appear at the pupillary and ciliary borders of the iris, varying in size, the average being about that of a pin's head. This form may occur in acquired syphilis, late in the secondary, or early in the tertiary stages; or it may be seen in congenital syphilis in babies of five to six months old, females being more commonly affected than males, and being unilateral in about half the cases.

The diagnosis can be readily confirmed on the Wassermann reaction, and spirochætes have actually been demonstrated in the anterior chamber. The prognosis is not good in either type, serious impairment of vision usually resulting, but it is rather worse in the gummatous forms. Specific iritis is a sign of severe syphilis, and Frousseau found that thirty-four out of forty patients ultimately developed severe sequelæ such as tabes or general paralysis of the insane.

Gonococcal iritis is more common in men than in women, and usually affects both eyes, though not simultaneously. It seldom occurs before there has been at least one attack of gonococcal arthritis, so that it is almost certainly a metastatic infection.

Under the heading "rheumatic iritis" are included most of the cases in which there is no apparent specific cause, and they are usually associated with attacks of acute rheumatism, gout, or rheumatoid arthritis. The joint pains and the iritis have probably a common cause, namely, toxic absorption from a septic focus, such as from teeth, gut, tonsils or Fallopian tubes, but in elderly patients there is probably a truly gouty diathesis. It often affects both eyes, and has a tendency to recur. Iritis may also complicate mumps.

Tuberculous iritis may also be of two forms, miliary or solitary. In both types the lesions tend to arise at the pupillary or ciliary margins. The importance of the condition lies in its diagnosis from gummatous iritis or sarcoma, and this is made on the Wassermann reaction, and failure to respond to anti-syphilitic treatment; also it tends to occur in young adults and children. The presence of iritis distinguishes it from sarcoma. In the solitary type, the corneo-scleral region is slowly eroded and finally gives way, and the eye is inevitably lost.

In all cases, the local treatment consists of dilating the pupil with atropine, to prevent posterior synechiæ forming, and to rest the eye, and heat should also be applied. The general treatment should, of course, be directed against whatever the causative factor may be.

Abnormalities of the movements of the iris can give valuable evidence in the diagnosis of diseases of the central nervous system. The classical example of this is the Argyll Robertson pupil, which is smaller than normal, is irregular, eccentric, and reacts only to accommodation and not to light. It occurs in 70 per cent. of tabetics, but it is a mistake to say that it is pathognomonic of tabes; it should be regarded rather as a sign of syphilis of the central nervous system. The site of the lesion which causes this peculiar reaction is not known, but it is probably in the peri-aqueductal substance of the mid-brain.

In tabes, loss of knee jerks, and this abnormal pupillary reaction are the early signs. Later there may be paralysis of one or more of the ocular muscles, causing diplopia, and bilateral ptosis, with compensatory wrinkling of the brow, leading to the characteristic facial appearance. Primary optic atrophy develops in about a fifth of cases, with contraction of the fields from the periphery inwards, and this may progress to complete blindness.

In the ataxic stage of tabes, the diagnosis has to be made from polyneuritis, and sub-acute combined degeneration of the spinal cord. In neither of these conditions are the pupils affected. There is a condition resembling the Argyll Robertson pupil, which occurs in the absence of all syphilitic evidence, and known as the myotonic pupillary reaction. There is inaction to light, but slow reaction to accommodation, and there is frequently loss of tendon jerks, also the blood and cerebro-spinal fluid are normal.

The pupils may also react sluggishly, or even give the Argyll Robertson reaction in encephalitis lethargica. They are also affected in myasthenia gravis.

(To be continued)

The Urinometer

By "Stanley"

THE urinometer is a very simple piece of apparatus consisting of a bulb containing mercury, a "float chamber," and a graduated stem.

The graduations in the stem are usually on a piece of celluloid or xylonite contained in the lumen and so arranged that its exact level may be adjusted for purposes of calibration.

This piece of celluloid naturally has a back and a front, the front being the surface which is graduated. The back usually bears some mystic device the meaning of which is only known to the maker.

The whole apparatus is made of clear, transparent glass, and patently contains no hidden mechanism, yet it seems to be endowed with a mysterious property, the nature of which has defied elucidation notwithstanding long and patient investigation by the writer over a period of forty years, and which cannot be satisfactorily explained by any of the theories which have been applied in the hope of a solution.

The urinometer is, for the greater part of its length, unequally cylindrical in section, and is therefore free to rotate in any direction in the fluid in which it floats. As far as I am aware, there has been no critical investigation of its electrical state (if any) when in use, although this might be a promising line to follow. But I am forgetting that I have not yet mentioned the mysterious property to which I allude, although many, doubtless, will have guessed to what I refer. It is, of course, the remarkable inherent perversity of invariably coming to rest in such a position that the graduated scale in the stem is consistently turned *away*, fully turned away, as a rule, from the observer.

Any attempt to bring it into view by carefully rotating the vessel in which it floats is usually ineffective for the first three or four turns. Then the urinometer slowly takes up the movement, rotates, and comes to rest once more with the scale turned away from the observer. If it is very carefully immersed in the urine with the scale towards the observer, so that any rotatory impetus is avoided as far as possible, the result is the same. If the process be repeated with the *back* of the scale to the observer in the hope that it will come to rest with the scale *towards* him, it makes no difference.

The earth's rotation might be suggested, but it would not explain the instrument's tendency to come to rest always with the scale the wrong way. It has even been wondered whether this tendency is only exhibited towards *certain* individuals—by which is meant whether it has any obscure or unsuspected astrological significance. There may be people who find that the scale always turns *towards* them, but, although I have made many inquiries among my medical friends, I have never succeeded in finding one. Perhaps there may be one or more of such individuals among your readers, who will give us his experience. It may be that he is one of fortune's favourites whose bread and butter, when he drops it, always falls with the buttered side up; who draws horses in sweepstakes; who can walk under ladders with impunity, spill salt deliberately, cross knives intentionally—and get away with it every time.

According to my observations, which cover the use of the instrument on many thousands of occasions, it may rotate either clockwise or "widdershins." Perhaps once in a hundred it will come to rest with the scale edgeways, but always so that an accurate reading is impossible. No matter whether the vessel in which it floats be the small cylinder supplied with the instrument, or a conical specimen glass, or a 20-ounce measure, it makes not the slightest difference. I am sure that the experiences of your readers could not fail to be of the greatest interest, and with the near approach of the *saison de folie*, would be most appropriate.

I would also wish to register the pious hope that this short note may meet the eye of some enterprising maker of urinometers, who will be constrained to produce an instrument with a *square* or *triangular* scale—inside a spherical stem if need be—so that it may be immediately legible. Truly that would be a pretty jest to play upon the Goddess of Luck!

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Correspondence

Rebuilding

To the Editor of the GAZETTE

SIR,—As it is clear that your "Passim" of December 18th has given rise to a number of misconceptions in the minds of your readers, I have obtained the authority of the Building Committee, which was appointed by the Court of Committees in March, 1936, to take a general survey of the Hospital buildings and to advise the Governors as to what buildings require rebuilding or reconstructing, to set out the actual facts.

An outspoken memorandum from the Medical Staff of the Hospital indicating the difficulties under which they are labouring owing to the old-fashioned layout of Guy's House, together with a rather disquieting memorandum from the Hospital architect on the condition of the fabric of the building, has convinced the Committee of the desirability of undertaking a big scheme of rebuilding as soon as the money for the purpose may become available. Various alternatives have been under consideration, but the undertaking is such a large one and presents so many problems that the Committee is proceeding with caution, and is not likely to commit itself to any definite plan until the whole problem has been explored fully.

Although there is no intention of increasing the total number of beds in the Hospital, the new Surgical Block will have to be considerably larger than Guy's House; for the opportunity offered by its erection must be seized to do away with Ruth and Barnabas Wards, which have never provided satisfactory accommodation for in-patients. As Guy's House contains 318 beds and Ruth and Barnabas 44, the new block will have to provide 362 beds, and due allowance must be made for this accommodation in any scheme of rebuilding.

For æsthetic and sentimental, as well as for financial reasons, the Building Committee is anxious to avoid any unnecessary demolition. The problem of how to provide a modern Surgical Block of the requisite size on the site of Guy's House, while retaining the Front Quadrangle unchanged or with as little change as is practicable, is almost entirely an architectural one. Expert advice is being sought, and your readers can rest assured that the problem, in all its various aspects, will receive most careful consideration before any recommendations are submitted to the Court of Committees.

The provision of a new Surgical Block will cost a very large sum of money, probably not far short of £400,000. It must be clearly understood that at the present time there is, practically speaking, no money available for this specific purpose, and that the Hospital, which is seriously in debt on Capital Account, is experiencing the greatest difficulty in meeting the normal costs of maintenance. The problems involved in the rebuilding of Guy's House, therefore, are not acute, although nothing but good can come of their careful consideration against the day.

Yours, etc.,

T. B. JOHNSTON,
Superintendent.

Guy's Hospital,
S.E.1.

Sport

Rugby

Guy's v. Birkenhead Park

(*At Honor Oak Park on Saturday, Jan. 8th*, 1938)

THE supporters of the Hospital turned up in force to welcome Louis Babrow, the South African centre who built up such a fine reputation with the Springboks during the recent tour to New Zealand, and who was making his first appearance for Guy's.

Unfortunately he was given very few opportunities to prove his ability, as the Hospital halves were overshadowed and the three-quarters were smothered by the time the ball reached them. Although Guy's scored first, Birkenhead Park quickly equalised, and eventually won the match by 2 placed goals, a penalty goal and a try (16 points) to a placed goal (5 points).

No doubt the result was a disappointment to many, but Birkenhead thoroughly deserved their success; they were a perfect combination, and their running and passing at top speed won the admiration of everybody.

Both sides attacked in turn during the first few

minutes of the game, but the visitors were awarded two penalties in quick succession, and they soon found a footing in the Hospital 25. The Park came within an ace of scoring when Dick tried to clear, but his kick was charged down by Hancock. Knowles pounced on the ball immediately and passed to Bibby, but luckily he knocked on with the line at his mercy.

Nicholson was getting the ball in most of the scrums, but the ball was heeled so slowly that Steel gave Eustace little chance to set his back division moving. However, after a quarter of an hour's play, Guy's heeled quickly from a scrum in midfield and Allen made an opening for Babrow, who in turn passed to Dick. Running strongly, Dick cleverly eluded Holden and Knowles, and, when tackled by the full-back, he managed to throw out a long pass to Fletcher, and Stanyon-Jacques accepted the final pass which carried him over the line for a try, which Dick converted.

This early success put the crowd in high spirits, but Birkenhead retaliated from the kick-off and from a scrum taken just outside the Hospital's 25 Steel caught Guy's napping and, sneaking away on the blind side, ran in for a try, which Bibby converted with a grand kick from the touch-line.

Encouraged by this success the Park played brilliantly, and within five minutes they took the lead when Hancock and Edwards got away on the right. Weak tackling enabled them to break through, and eventually Edwards accepted a reverse pass at top speed and ran over for a try in the corner.

Bibby and Steel, the visiting halves, had a wonderful understanding and were a constant source of trouble. Time after time they set their back division in action, and for most of the time Guy's were fighting a rearguard action.

After Bibby had just missed the upright with a penalty kick, Guy's improved, and Dick and Babrow made several attempts to find an opening, but Bibby, Knowles and Hancock tackled fearlessly.

Near the interval the Park increased their lead when Edwards scored again following some excellent passing along the whole back division, and Bibby had no difficulty in adding the goal points.

Early in the second half the visitors set up a hot attack, but Douglas sent them back with a flying kick which luckily found touch just inside their 25. Guy's made several attempts to find an opening, but K. D. Downes, the Cambridge Blue, was safe at full-back and gave nothing away.

After Babrow had checked Hancock, the Park forwards dribbled the ball down-field and, following a five-yards' scrum, play continued near the Hospital line until Crawford managed to get in a long kick which found touch near midfield.

However, the Park were quickly back again, and after a desperate struggle in front of the posts, Yerbury was penalised for not playing the ball, and Bibby kicked an easy goal.

After this reverse Guy's improved, but they could make little impression, and in the closing stages Crawford did well to stop a three-quarter movement when a score appeared certain.

Team.—J. P. Crawford; A. B. Baxter, R. C. S. Dick, L. Babrow, D. M. Douglas; R. D. Allen, T. H. Eustace; R. M. Sharpe, E. S. Nicholson, H. H. Crabb, J. R. D. Williams, A. Forbes, R. O. Yerbury, P. Fletcher, K. A. Stanyon-Jacques.

Guy's v. Devonport Services

(*At Honor Oak Park on Saturday, January 15th*)

BOTH sides were hampered by a high wind which blew straight down the ground, and the backs found it difficult to handle the ball with any degree of accuracy. However, after a close struggle, Guy's managed to win the return fixture with Devonport Services by a try (3 points) to nil.

The visitors were practically at full strength, but the Hospital were compelled to make one or two changes as Crawford was injured and Dick was required for the Scottish trial. However, R. D. Plowman, who deputised at full-back, played his best game so far, and never put a foot wrong. His tackling and positioning were excellent, and his raking kicks to touch were a great asset to Guy's, especially when they were on the defensive after the interval.

Another important change was at scrum half, where Stanyon-Jacques, occupying his old position, got through a tremendous amount of work and had the forwards heeled the ball a little quicker, no doubt the backs would have had many more opportunities. Apart from this defect the pack played magnificently, particularly in the loose, where C. Vidot, playing his first game for the first fifteen, was outstanding.

Winning the toss, Guy's took advantage of the wind and, for the first ten minutes, the Services were forced to defend desperately against fierce forward rushes. Babrow and Kynaston combined beautifully, and were constantly harassing Devonport's back division, but gradually they settled down and Bailey, Hogg and Hughes tackled so well that Guy's made little or no progress.

Wing-Commander Chick held a tight grip on the game, and in the early stages Guy's were penalised on several occasions for scrum infringements. However, as the game proceeded the Hospital improved, and a grand forward rush from their own 25 carried the ball to the other end of the field, and from the stand it appeared that Forbes registered a perfectly good try, but the referee, who was on the spot, ruled that a Services player had touched down beforehand.

Right from the kick-off Guy's attacked again, and Stanyon-Jacques carved out a fine opening for Allen, who passed to Babrow. After drawing the defence, Babrow sent Baxter away on the right, and he looked certain to score when Hughes came across at lightning speed and grassed him near the corner flag.

This was Guy's last chance before the interval, and having failed to establish a lead with the wind in their favour, everyone expected the Services to win comfortably. However, the Hospital soon confounded their critics by starting the second half full of confidence, and within five minutes they took the lead, when Vidot began a movement which was carried on by Drew and Kolesar, who took the final pass to register a try, which Plowman just failed to convert.

A ding-dong struggle followed, and the Services tried hard to find an opening, but the Hospital defence gave nothing away, until Hughes and Bailey started to make use of the wind by judicious kicking which often found touch too near the Hospital line to be comfortable.

Guy's fought back magnificently, and Forbes was here, there and everywhere. On two occasions he broke away from loose scrums and surprised everyone by his speed, but he was badly supported and good opportunities went astray.

A little later the Services nearly equalised when the Hospital were penalised in front of the posts, but Hughes allowed a little too much for the wind and the ball struck an upright, bounced into play, and Guy's, profitting by this escape, started a movement which carried them well into their opponents' territory.

On one occasion Babrow was nearly through, but slipped just as he was about to pass the full-back, and near the end Kynaston sent Baxter away on the right, but once again Hughes tackled him with only a few yards to go.

Team.—R. D. Plowman; A. B. Baxter, R. U. F. Kynaston, L. Babrow, D. M. Douglas; R. D. Allen, K. A. Stanyon-Jacques; A. J. Drew, E. S. Nicholson, H. H. Crabb, J. R. D. Williams, A. Forbes, R. O. Yerbury, C. C. Vidot, P. D'O. Kolesar.

Golf

FINAL OF THE HOSPITALS' CUP

ON Thursday, February 10th, we meet St. Thomas's, the holders, in the final of the Inter-Hospitals' Golf Cup. The match will be played at West Hill Golf Course, the scene of our two victories in the previous rounds, against Middlesex and London.

We have only won this Cup once since the war, viz., in 1933, whereas St. Thomas's have won it a good many times before then and every year since. We come up against them every year almost without fail in this tournament, but not once since 1933 have we been able to beat them. This year, therefore, having reached the final and opposed to them once more, we are going to make a specially determined effort to end their run of successes. Our team has done very well at West Hill so far, and as our opponents are reputed to have a weaker side this year than previously, we undoubtedly stand a great chance of winning back the Cup once again.

The team will be B. C. M. Read (captain), I. Drybrough-Smith, S. M. Whitteridge, P. Wilson, R. D. Allen, P. D. Spooner, I. C. Ritchie, T. N. Praat.

The Golfing Society's Dinner will be held soon after this match, and we hope very much to be able to celebrate our victory then. All those who intend to play golf during the season or are interested in it should make a point of coming, as the Annual General Meeting of the Society will be held the same evening. Further particulars about this will be given in the next issue.

Hospital Information, etc.

Notice

UNITED HOSPITALS SWIMMING CLUB

The United Hospitals Swimming Club Dance is being held at the Westminster Palace Rooms on Wednesday, February 2nd, from 8.30 p.m. till 2 a.m. Tickets, 12*s.* double, 7*s.* single (including refreshments). Roger Lee and his orchestra will be in attendance. Tickets can be obtained from the Hon. Secretary, Guy's Hospital Swimming Club.

Notice

FINAL F.R.C.S. COURSE.

The next course of instruction for the Final Examination for the Fellowship of the Royal College of Surgeons of England, will commence on Monday, February 21st. Guy's men who wish to take the course should communicate with the Dean of the Medical School as soon as possible.

T. J. EVANS, *Dean.*

Pass List

CONJOINT EXAMINATION.

FIRST EXAMINATION

December, 1937.

Anatomy.

P. C. Dismorr
J. E. Gilbert
J. W. Graves-Morris
J. T. M. C. Jenkins
G. Macvicar
R. Wadia

Physiology.

P. C. Dismorr
J. W. Graves-Morris
G. W. Taylor
R. Wadia

Pharmacology.

D. I. Chapman
C. Halamandres
D. A. H. Johnson
E. J. A. Needham
A. Pearce
G. J. F. Rees
W. A. D. C. Shearman

PRE-MEDICAL EXAMINATION

Chemistry.

B. J. Dupree
G. G. T. Fletcher
A. P. Gimson
J. R. C. Matthews
J. A. Powell
W. L. Renouf
E. J. Tucker
B. H. Wilshere

Physics.

J. S. Breen-Turner
B. J. Dupree
G. G. T. Fletcher
E. Harvey
A. J. Hayward
C. P. Murch
J. A. Powell
E. J. Tucker
N. J. Whelpton
B. H. Wilshere

Elementary Biology.

M. Barber
J. A. Boyd
G. G. T. Fletcher
D. Gill
A. P. Gimson
A. J. Hayward
R. B. Illing
E. S. Jerichower
E. J. Tucker

UNIVERSITY OF CAMBRIDGE.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

Michaelmas Term, 1937.

PART I.

Midwifery and Gynæcology.

H. Stott.

PART II.

Physic, Pathology and Pharmacology

T. L. Barbour
A. S. Bookless
A. W. Box

UNIVERSITY OF LONDON.

December, 1937.

M.D.

BRANCH I.

Medicine.

C. G. Baker
C. A. Lillicrap
W. N. Mann

ROYAL COLLEGE OF SURGEONS.

L.D.S., SECOND EXAMINATION.

December, 1937.

J. A. Avasia
E. K. Breakspear
W. F. A. Butcher
G. E. Clarke
J. C. Coe
K. A. Irish
D. J. Lyon
N. H. McLellan
A. M. Platt
L. J. Price
R. S. Stevens
G. W. Vincent
L. J. Wallace
J. B. Wilkes

SOCIETY OF APOTHECARIES OF LONDON.

PRE-MEDICAL AND PRIMARY EXAMINATIONS.

January, 1938.

Materia Medica and Pharmacology.

J. .V Braithwaite
D. B. Roberts

Papers by Guy's Men

W. H. Ogilvie. Treatment of wounds—I. *Brit. Med. Jour.*, 1938, i, 132.

—— Treatment of wounds—II. *Brit. Med. Jour.*, 1938, i, 183.

A. Arnold Osman. General considerations concerning the management of patients suffering from Bright's disease. *Post-Grad. Med. Jour.*, 1938, xiv, 10.

R. E. Smith and Another. Torsion of the testicle and of the hydatid of Morgagni. *Brit. Jour. Surg.*, 1938, xxv, 561.

J. F. Pilbeam. Co-operation between the private practitioner and Public Dental Officer. *Brit. Dent. Jour.*, 1938, lxiv, 73.

Changes of Address

H. P. L. Rhodes, 02, Frobisher House, Dolphin Square, S.W.1.

Edward Clayton-Jones, Heronshaw, Ightham, Sevenoaks, Kent.

Patrick Clarkson, 19, Duchess Mews, W.1. *Langham* 3152.

Appointments

E. Clayton-Jones, to the Editorial Staff of the *Lancet.*

Births

GILLIES.—On January 18th, 1938, at 24, Alvanley Gardens, Hampstead, to Peggy, wife of Alan Gillies, L.D.S. (Eng.)—a daughter.

O'MEARA.—On January 8th, 1938, at Nuffield House, Guy's Hospital, to Joan (née Ridley), wife of D. J. P. O'Meara, F.R.C.S., of Highbury House, Bury St. Edmunds—a son.

Marriages

RHODES—GIBBS.—On December 18th, 1937, at St. Bartholomew's Church, Haslemere, by the Rev. W. R. K. Robinson and the Rev. Martin-Jones, Harold P. L. Rhodes, L.D.S., R.C.S., R.N., eldest son of Mr. and Mrs. G. W. H. Rhodes, of Whitwell Down, Haslemere, to Margarette E. T. Gibbs, eldest daughter of Mrs. Gibbs and the late Mr. Frank Gibbs, of Highfields, Haslemere.

CLARKSON—MUTCH.—On Friday, 17th December, 1937, at St. George's, Hanover Square, Patrick Clarkson to Barbara, only daughter of Dr. and Mrs. N. Mutch.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — *12th February* 1938 — *Number* 1293

PASSIM

AS we go to press comes the news of the retirement of Sir E. Cooper Perry, G.C.V.O., M.D., LL.D., from the Court of Governors of the Hospital. Sad news, indeed, for it marks the end of half a century of devoted service to Guy's. We publish elsewhere an appreciation of these services written by one who knows to the full what we owe to Sir Cooper Perry. We would only add our deepest regret that the Hospital is henceforth to be deprived of his long experience and wise council.

WE hope in our next issue to be able to announce the plans which are being formulated for the next phase of the Guy's Hospital Appeal. A long-term campaign of the type undertaken by the Appeal officials is bound to have its waxings and wanings, and we are given to understand that a period of great activity is to be initiated in the very near future.

OUR next issue will also contain a full account of the Residents' Play, with photographs of the various scenes for the benefit of those who have been unable to witness this hardy but evergreen perennial. Each year a few days before the opening night we hear rumours of an impending flop, which are followed equally regularly a few days later by the clamorous acclamations always accorded to the play.

This year has proved no exception, and while we shall allow ourselves no further comment since at the moment of writing we have not seen the performance, we are told that there is every reason to believe that the Residents have "pulled it off" again.

THE medical profession is enjoying a new wave of popularity if we rightly interpret some statistics that have recently come our way. These we print for your perusal and consideration :—

Medical Students in the British Isles

	Men	*Women*	*Total*
1928	7,279	1,108	8,387
1935	11,176	1,747	12,923
% increase	+53.5%	+57.7%	+54.2%

These figures are self-explanatory, and we consider that they give cause for alarm in their implications. We speak from memory, but we believe that a few years ago there was one doctor in England to every eight hundred of the population, a figure which was at the time considered to indicate that the "saturation point" had been attained. During the seven years' period under consideration, while the population has certainly not increased by 4 per cent., the number of those entering the medical profession has shown a real appreciation of 50 per cent.

It is not difficult to deduce what the results must inevitably be: Either the public will pay correspondingly more for its medical care, or the practitioner of medicine will earn correspondingly less. While both these factors will probably be operative, the outcome will certainly be a reduction in the standard of living of the average medical practitioner. On the one hand the medical student is forced to undergo what is yearly becoming a more exacting training; on the other he must look forward to an ever-diminishing return for his six year's outlay of time and money.

We consider that this state of affairs could easily be remedied by increasing the powers of the General Medical Council to allow it to control the number of students who should annually take up medicine as a career. Having decided upon the optimum number of doctors per million of the population, it could then control at the source the number of students in any one year. This scheme would also allow of a better selection of material and make for a higher standard in the profession.

Nothing, of course, will be done about the matter, because those bodies who control medical education depend for their incomes upon a plentiful supply of students. The budgets of the medical schools will continue to be balanced by gross overcrowding and inferior educational facilities, while the examining boards will remember with satisfaction that their takings are dependent upon the number of examinees.

We, in our small way, shall continue to discourage too great an influx of students to this Hospital by prattling unceasingly about living conditions in our College, which should prove a wholesome deterrent to any young man who stands trembling on the brink of a medical career.

WE would remind our readers of two forthcoming events, notices of which have already appeared in the *Gazette*.

Firstly, the Residents' Ball, which is to take place on Friday, March 11th, at the Grosvenor House, Park Lane. Tickets at one guinea each, to be had from Mr. Angus Smith, The College, Guy's Hospital. Secondly, the Dental Society Annual Dinner, which will be eaten on March 5th at 7 for 7.30 p.m. at the same hotel, and will be preceded by Clinical Meetings in the morning and afternoon of that day. Tickets and details may be obtained from Mr. Malleson, hon. secretary of the Dental Society.

Sir E. Cooper Perry, G.C.V.O., M.D., LL.D.

An Appreciation of fifty years' service to Guy's

IT is to be hoped that the day is far distant when it may become necessary to write Sir Cooper Perry's biography, but the occasion of his retirement from the Court of Governors of the Hospital seems fitting for a short account of his work in connection with Guy's.

Dr. Perry, as he then was, came to Guy's from the London Hospital in 1887, when he was elected to the Staff as an Assistant Physician at the same time as Dr. Newton Pitt. If on his retirement after fifty years' service he deserves a memorial, the inscription on that memorial should certainly be *Si monumentum requiris, circumspice*, for Guy's as it stands to-day (with the exception of Guy's and Hunt's Houses) not only in structure but also in administration and atmosphere is his creation.

At the time that Dr. Perry arrived at Guy's, the Hospital had been in the doldrums for at least a quarter of a century. Its financial position was serious and the administration was centralised almost entirely in the hands of a resident Treasurer, with the result that the Governors on the Court took little interest in its affairs, and the relations between the Governors and the Medical and Surgical Staffs were far from cordial. In brief, the moribund organisation needed an effective stimulus if it were to survive. This stimulus was provided by the massive intellect and great administrative ability of the new Assistant Physician.

Within a year of his appointment he was made Dean of the Medical School, and the first of his many far-sighted schemes was the establishment, in conjunction with Mr. Newland Pedley, the Dental Surgeon to the Hospital, of the Dental School. In December, 1888, the Court resolved, in accordance with the recommendation of a School meeting, that the Dental Department of the Hospital should be extended by the establishment of a School of Dental Surgery, to be called the Dental School attached to Guy's Hospital. The extraordinary success of the Dental School, which now turns out annually nearly a quarter of the new entrants to the dental profession, is a testimony to the wisdom and vision of the two who so many years ago appreciated the advantages not only to dentists but also to the Medical School of a combined training for two professions so closely akin. The establishment of the Dental School at Guy's has had a great influence on the improvement of the professional and social status of the dental profession.

Dr. Perry's next work was the building of the College in 1889. Though the College may now be criticised as inadequate and old-fashioned, it is to be remembered that at that time such a hostel was almost unique, and it set an example that has been followed by nearly every other Medical School in London. It was opened by Mr. Gladstone, and it is an interesting historical fact that Dr. Perry was the only person whose head was massive enough to wear Mr. Gladstone's hat!

In 1892, on the death of Dr. Steele, Dr. Perry was appointed Superintendent of the Hospital, a post which he held for twenty-eight years. In 1896 that portion of the School buildings now occupied by the Physiological Department was opened. This was the first appreciable enlargement of the Medical School since it was originally built in 1828.

But it was in 1896, on the retirement of the Treasurer, Mr. Lushington, that the great triumvirate, Mr. Cosmo Bonsor, Dr. Perry and Mr. Fripp, began their work together, work which in a few short years was to raise Guy's Hospital

to a unique position in the hospital world. Mr. Bonsor, with his generosity, humanity and wisdom, brought a new atmosphere of happiness and co-operation into every department of the Hospital. Mr. Fripp, then a young man, but Surgeon to the Prince of Wales (later King Edward VII), was instrumental in prevailing upon His Royal Highness to become the President of the Hospital. Fripp also, with his close association with the Prince of Wales, a large practice in the highest social class, and his never-failing interest in his hospital, was able to interest many generous benefactors in the Hospital and Medical School. Behind these two was Dr. Perry, with his great gift for organisation and administration.

Dr. Perry's first achievement was the reorganisation of the scheme of government of the Hospital, involving the establishment of the House Committee and of the Staff and School Committee. The principles underlying the Scheme (which has been the pattern for many hospitals in the last forty years) was to obtain for everyone direct access to the Governing Body without the possibility of obstruction by a permanent official. Thus the duty imposed upon the House Officers to attend the House Committee with their diaries gave them direct access to the Governors. The constitution of the Staff and School Committee, consisting of representatives of the Governors, the Staff and the School, gave the representatives of the Staff and the School direct access to the Governors otherwise than through the Superintendent and the Treasurer, and enabled them to get a body of well-informed supporters should their schemes or proposals come before the Court. Only those who were members of the Hospital or School Staff before this reorganisation would appreciate how this improved the general atmosphere of the Hospital.

Then in 1897 came the great appeal for funds and the establishment of the Re-endowment Fund, the starting point of which was a great public dinner—the first of its kind—with the Prince of Wales in the Chair. Even forty years ago it was the view of the Governors that the public were getting tired of continual appeals, and that the steady growth and improvement of the Hospital were impeded by the eternal pre-occupation with financial difficulties. The appeal for the Re-endowment Fund was for half a million pounds, and so much was collected that until the War the Hospital was not only able to maintain itself without anxiety, but every year a balance was carried forward which could be devoted to extensions and improvements.

In 1898 Dr. Perry began to deal with the accommodation for nurses, and with a gift of £20,000 from Mr. H. L. Raphael in memory of his wife, supplemented by a donation of nearly £5,000 by his sons, Sir Herbert and Mr. Walter Raphael, the Henriette Raphael Nurses' Home was built and opened by the Prince and Princess of Wales in 1902. When this Home was established thirty-five years ago it was the first of its kind to have a separate room for each nurse with hot and cold water laid on, together with a swimming bath.

After the South African War and the breakdown of the Royal Army Medical Corps in that campaign, a Committee was formed to draft a scheme for the reorganisation of the Army Medical Service, and Dr. Perry was appointed on this Committee. The result of the Committee's report was the reorganisation of the Royal Army Medical Corps on more or less its present lines, and the building of the Royal Army Medical College at Millbank, designed by the Hospital Architect, Mr. H. L. Woodd. For his services on this Committee, Dr. Perry received his knighthood.

The building of the Henriette Raphael Nurses' Home was also the occasion for the construction of the Central Power House, in which for the last thirty-five years the Hospital has generated its own electricity at a cost far below that at which it can be obtained from outside sources.

During the ensuing years nearly all the Hospital wards were renovated and refloored, and separate sanitary blocks were built. In 1910 the Out-Patient Department was enlarged and the Front Surgery removed from its old position near the entrance of the Hospital to its present site.

In 1904 the Actinotherapeutic Department was instituted, and in 1914 the School of Massage was established. From that day to this the Hospital has been supplied with massage free of cost, the fees from pupils defraying the whole cost of the Department. On similar lines the Electrical School was founded in 1916. Both these Schools have established a high reputation, and have since been imitated elsewhere. The new buildings in which these Schools are now housed were opened by the Duke of York, now King George VI, in 1921.

In 1916 the Venereal Diseases Department was established, and in this department the principle was established that it should not be entirely separate, but should be linked up with the existing Hospital departments of Genito-Urinary Surgery and Dermatology, thus avoiding the narrow outlook of isolated specialisation. In 1918 the Salomons Infant Welfare Centre was instituted, and in this department the guiding principle was maintained that the ante-natal centre, the maternity department and the infant welfare centre

should form a coherent whole so that the patients should throughout the periods of pregnancy, labour and post-natal care be in the charge of the same persons. The results of such an enlightened scheme have been amply shown in the low maternal death rate for many years past.

In all these schemes Sir Cooper Perry was the constructive brain and the far-seeing organiser. In fact, on looking round the Hospital, there is practically nothing except Hunt's House and Guy's House which is not the work of his hand. In 1920, on his appointment as Principal of the University of London, he retired from the post of Superintendent, and was elected a Governor of the Hospital. In this capacity and in later years as Chairman of the Staff and School Committee, he has continued to give the Hospital the unstinted benefit of his exceptional experience and unrivalled administrative capacity.

To those who have known him during the last fifty years, his departure from Guy's will be a matter of the deepest regret. No one will forget his wisdom, his sense of justice and the constructive capacity of his mind. He took a deep personal interest in everyone connected with the Hospital, from the lowest worker to the highest. Accessible to all, he was open to any new idea or suggestion. Criticism, without constructive ideas, was abhorrent to him, and it may well be said of him at the end of his career at Guy's, *Nihil quod tetigit non ornavit.*

Pyrexia of Obscure Origin

A Clinical Lecture delivered in January, 1938, by Dr. A. H. Douthwaite

GENTLEMEN,—I feel that no apology is needed for lecturing on the same subject twice in three years when the topic is that of cryptic fever. It is a constant menace to peace of mind and reputation, yet if explained the honour bestowed is rarely proportionately great. The layman cannot be expected to believe that typhoid, influenza, tuberculosis or even measles may be undiagnosable in its earliest stages, and tends to assume incompetence in the practitioner who refuses to be coerced into a diagnosis. This has led to such a widespread use of the term "influenza" that for many it seems to have lost all meaning. There is, furthermore, a danger in propitiating the irritable relative in this manner, for typhoid fever or an appendicular abscess is an unlikely sequel of influenza even to the laity! The blessed word "toxæmia" has carried more than one physician to safe harbourage, but it is not to be recommended. It is dishonesty to oneself which is the great danger of meaningless diagnosis. It may help out of difficult situations, but by allaying self-criticism cumulatively impair efficiency.

In lecturing on cases of pyrexia of obscure origin I am referring to instances in which pyrexia has been the outstanding, often the only sign of disease, and which I have been asked to see primarily with the object of explaining the raised temperature. Thus only at the beginning of an epidemic of, for instance, typhoid fever would cases come into this category because later, although pyrexia might still be the main sign, its origin would be suspected. In importance, I put history-taking first of all. When we are considering feverish illnesses with scanty signs our only hope lies in obtaining diagnostic information from the patient. Obvious as this may sound, it can never be too greatly emphasized. Thus a patient with hectic fever of six weeks' duration presented neither symptom nor sign to account for it. Taking the history further back, however, to what he regarded as a healthy stage, it appeared that he had had a cough for two weeks, which then subsided. A slender indication, but enough to indicate the advisability of X-ray of the chest. This revealed a small encysted effusion on the mediastinal aspect of the right lung lying immediately anterior to the root and thus giving no sign of its presence. The underlying cause was probably lymphadenoma.

A man suffering from recurrent short bouts of high fever following incision of a septic finger was seen in an apyrexial period when he was again active and devoid of evidence of disease. Here the history of the type of fever, supplemented by inquiry as to his hobbies, indicated the diagonsis of rat-bite fever. He used to spend week-ends ferreting, and one of his animals which was sick had bitten him—hence the septic finger.

Instances of the value of history-taking could be multiplied indefinitely, but the above will suffice. Next in importance comes, of course, the physical examination, but at the risk of being accused of stressing the obvious I want to insist on the absolute necessity of examining the entire body surface lest we miss, for instance, head lice, Hodgkin's glands, erythema nodosum or phlebitis as the cause of pyrexia, and again of doing a vaginal and rectal examination if the cause has not been found during the usual overhaul. Diarrhœa and fever, or even fever alone may be the only indica-

tions of an appendix abscess until revealed by the finger in its rectal search. Prostatic abscess is equally easily overlooked. Women are so uncertain about what they consider the normal amount of vaginal discharge that when in doubt examination should be made visually with the aid of a speculum. This explained a nine months' pyrexia in a woman constantly feeling wretchedly tired yet with no other symptoms. Even when questioned she assured me that she only occasionally had a slight discharge, yet the cervix was seen to be inflamed and pus was oozing out of the os. There was a low-grade infection of the uterus following spontaneous abortion. Uterine douching brought the temperature to normal at once; hysterectomy cured.

There is only one special investigation which is likely to be needed often in the elucidation of cryptic fever, and that is the white blood count. Its importance cannot be over-estimated, and ability to carry it out reasonably accurately should be maintained in spite of the demands on one's time of general or consulting practice. A polymorph leucocytosis at once excludes a big group of relatively uncommon causes of pyrexia, *e.g.*, typhoid, paratyphoid and minor members of the food poisoning group, tuberculosis (except occasionally the miliary form), influenza and malaria. It suggests on the other hand that one is faced with a common disease due to equally common pyogenic organisms. This narrows the field and also suggests that daily meticulous examination will inevitably and shortly solve the conundrum.

CLASSIFICATION

As a somewhat broad classification of perplexing fevers I suggest (1) endocrine, (2) toxic, (3) cerebral, (4) microbial, the last being much the commonest.

Endocrine Origin.—The thyroid is the only member of this group which at all frequently gives rise to slight, but persistent, pyrexia without obvious signs. Early Graves' disease in this way resembles chorea, that once it is thought of it can be diagnosed without difficulty. That is to say, its characteristic signs can be elicited. But it is not, perhaps, generally recognised that for several months the disease may be accompanied only by a raised temperature, *e.g.*, 99°, trivial loss of weight, and nervousness without tachycardia or appreciable thyroid enlargement. The startled, wide-open eyes may be noticed for a moment as the patient enters the room, and are not revealed again during the consultation. Rise of pulse-rate on slight exertion and tremor can, however, usually be brought out if looked for.

In the later stages of anorexia nervosa the patient may be persistently pyrexial when up and about, but apyrexial when resting.

Occasional outbreaks of fever in the grossly obese are puzzling, and suggest a spasmodic effort of the body to consume its strangling deposits. They disappear with reduction of weight.

Toxic Origin.—Under this heading I include a not uncommon cause of pyrexia, namely, degenerating new growths, *e.g.*, fibroids, sarcomata and carcinomatous metastases in the liver. In the case of malignant growths the patient always looks ill by the time fever is produced, but often one is hard put to it to clinch the diagnosis.

The prolonged though slight fever which so often follows cardiac infarction is presumably another example of the chemical agency of dead tissue. In the days before the clinical picture had been differentiated from that of angina pectoris, the low-grade pyrexia was a fruitful source of worry to many of us, though we must be grateful to it in retrospect for having, by its existence, secured for the patient a prolonged rest in bed.

Alcoholic hepatitis is another example of this group. The instances I have encountered have been in stockbrokers, doctors, elderly spinsters and widows. In no case could the patient be described as a drunkard, yet the daily consumption of whisky, sherry and often cocktails has amounted to the equivalent of 150 to 300 c.cm. of alcohol. The liver is slightly enlarged and tender; the evening temperature rises to about 99° F. The pyrexia may disappear after a few days of abstention.

The barbiturates, especially phenobarbitone, may, if taken regularly, cause fever. Prontosil and its derivatives often do the same. Many drugs, especially amidopyrin and gold, may cause fever and angranulocytosis. It is well to inquire as to any medicines which may have been taken regularly prior to the onset of fever. The sale of certain " slimming " drugs, notably dinitro-orthocresol, may also provide us with diagnostic difficulties.

I am as yet uncertain as to the group appropriate for achylia, but from the practical point of view this is of no importance. Achylia is not necessarily the result of gastritis, and it is unlikely, therefore, that the local condition can cause fever. It may be due to some derangement of metabolism secondary to disturbance of one of the as yet little understood functions of the stomach, or it may be simply due to lack of acid allowing of duodenal and ileal infection. Probably the latter, for treatment with acid, pepsin and a suitable diet and correction of the hypochromic anæmia which is always present in these pyrexial cases will abolish

the fever. Such instances are, however, decidedly uncommon. Pyrexia in pernicious anæmia is quite common, but does not come into the scope of our discussion.

Cerebral Origin.—I am chiefly concerned here with the psychic functions of the brain, leaving the organic disturbances of the thermotaxic centre, as by heat-stroke, hæmorrhage or tumour, out of consideration owing to their rarity in the absence of some clear history or sign to indicate the nature of the disease. When, however, we come to the "functional" pyrexias we at once enter a large field. My experience is that the vast majority are factitious, but undoubtedly a few are genuine enough, and occur in very nervous subjects. Children who have had much illness are extraordinarily liable to run persistent fever after, for instance, a simple coryza. It may be argued that this is really evidence of poor resistance to infection, but the fact remains that if they be got up and sent about their ordinary life the fever commonly abates in the course of a day. I have seen a steady pyrexial swing of 98° to 99.2 in a neurotic and erotic woman with close parallelism of the rectal temperature such as could not, I think, be faked. She had been doing this for ten years following an attack of bronchopneumonia. She was well nourished, of steady weight, normal sedimentation rate, normal blood count, and completely normal to every possible examination. Undoubtedly she faked her temperature at times when the mouth registered 4° higher than the rectum. She had behaved outrageously at another hospital, and never forgave the staff for failing to find a cause for her pyrexia. In spite of this, I believe that her usual pyrexia was absolutely genuine and dependent upon her emotional state.

The tricks for the production of pyrexia by the malingerer are legion, most of them being ingenious. These patients often reveal themselves by feigning extreme exhaustion. They lie prostrate and supposedly semi-stuporose. One's suspicions are aroused by the sight of a well-nourished woman with normal pulse, no physical signs of disease, obstinately closed eyes, and a temperature chart showing fever of several weeks' duration. In every case of this sort the doctor should take the rectal temperature himself, and keep his hand on the thermometer the whole time. Hot drinks, tongue rubbing and other wiles may raise the mercury, but the patient who can perform similar antics with the rectum must be rare. If the patient is protecting herself with a semblance of lethargy or semi-consciousness, it often pays to whisper to the attendant nurse. I have not yet met an hysterical or malingering subject whose curiosity could resist such a bait. One notices the head turn ever so little, enough to favour one ear, and the eyelids part just a fraction, so that the whisperers shall be observed. Hysterical stupor, feigned meningitis, and what not can be caught out this way, but there are unfortuntaely some who are much more versed in the art of being sick.

Once satisfied that the patient is a malingerer, it is, I find, better to deal with her alone. Any audience will produce stubborn resistance. I generally say straight out that I am not in the least impressed by the performance, but that if the patient will start recovering within twenty-four hours, I will not give her away to her relatives, and will let them assume that whatever disease has been suggested is now passing off. This subterfuge is justified, because no patient will willingly face exposure and will most obstinately go on shamming unless protected by the doctor. One must, as it were, give her a decent method of escape from the position she has assumed, with the alternative of brutal exposure if she fail to co-operate.

Microbial Origin.—Microbic diseases provide us with far and away the largest selection of puzzling cases of fever. A not uncommon one is infective endocarditis. The subacute bacterial type is notoriously difficult to diagnose, for the onset is very insidious and the signs slight. The most helpful points are the sickly complexion of the patient (described as café-au-lait), shortness of breath, an invariably raised pulse-rate, slight albuminuria, and the finding of red cells in the urine on microscopic examination. There is almost always an old and recognised rheumatic valvular lesion to assist one, but such diagnostic signs as Osler's nodes, enlarged spleen, clubbed fingers, petechial hæmorrhages, and positive blood culture have often to be awaited for many weeks. Often I have been consulted on account of fever due to the more fulminant, malignant, or ulcerative type of endocarditis. The reasons for the nature of the disease being overlooked are (1) familiarity with and consequent disregard of the existing valve (usually aortic) lesion; (2) the occurrence of pains in the limbs, which are assumed to be those of a fresh attack of acute rheumatism. Most cases, however, arise in middle life, when recurrence of true rheumatism is uncommon. Again, the obvious severe illness of the patient, the pallor, loud murmurs, and sweating should direct attention to the skin, spleen and urine for evidence of embolism and to the fingers for the early changes of clubbing.

Staphylococcal fever may produce a symptomless fever apart from the usual discomfort of a swinging temperature. Here undoubtedly the most helpful points are: (1) leucocytosis of about 12,000 with a relative increase of polymorphs, and

(2) a slow pulse in relation to the temperature, *e.g.*, temperature 101° F., pulse 76 to 84. The first point excludes the typhoid group, and suggests pyogenic infection. The staphylococcus is the only common organism to produce such a pulse-temperature ratio. A history of a boil a week or two previously is usually forthcoming, but only if inquiry is made. The development of perinephric abscess as a result of a secondary renal cortical abscess is a common sequel, but it may be symptomless for two or three weeks, or it may give rise to pain referred to the right iliac fossa and lead to operation for appendicitis. The earliest sign may be a gradual rising of the diaphragm on the affected side, with restricted lung excursion; but more often a slight fullness of the loin can be detected if the back be observed from above with the patient sitting forwards. Once the condition is suspected, the loin will, of course, be repeatedly examined for tenderness, and it may be observed also that the patient prefers to keep the thigh on the affected side flexed. It is not fully appreciated that in most cases of so-called perinephric abscess the lesion starts in the kidney, and, therefore, the staphylococcus aureus is often to be cultivated from the urine. Residual metastatic abscesses may often perpetuate fever even though the main area of sepsis has been drained. For instance, the prostate, bone or even muscle may harbour such a focus which may be symptomless until palpated.

Even now we have not exhausted the various revelations of an underlying staphylococcal septicæmia. For instance, I have met two cases of repeated hæmoptysis, wasting and fever, both originally diagnosed as tuberculosis, and yet proving to be due to staphylococcal lung emboli. In the one case the origin of the infection was eventually traced to the tonsils, from which a pure growth of staphylococcus aureus was cultivated; in the other, an old gunshot wound of the thigh formed the site of original infection. The value of a leucocytic count in both cannot be overemphasized.

Streptococcal septicæmia is far less commonly a source of diagnostic difficulty because there is an initial acute inflammation at the portal of entry —usually the throat.

Food infections come high in this series. By these I mean not only typhoid and paratyphoid fevers, but also diseases arising from associated organisms of the salmonella group and of abortus fever. Headache, dirty tongue, diarrhœa or constipation, pyrexia of 100° to 103° F., nausea and often vomiting may be the symptoms, but diagnosis is extremely difficult. Once again a leucocyte count is of great value, for a leucopenia, or at least absence of a high leucocytosis, in association with such symptoms and high temperatures, is very suggestive of one of the food-poisoning organisms. Early bacteriological examination of the stools and urine is always advisable. After a week it is unlikely to be fruitful, but soon after this agglutination reactions develop and may, in fact, be the sole means of clinching the diagnosis. I have been impressed by the frequency of the Bacillus aertrycke in these patients who are often addicted to ducks' eggs. It should be borne in mind that recent T.A.B. inoculation does not exclude the possibility of typhoid fever. Three years ago I saw a lady with signs very suggestive of typhoid who had received full protective inoculation five weeks prior to her being infected in the East. The agglutination reactions were temporarily dismissed on the assumption that the vaccine was responsible for them. A few days later rose spots and pea-soup stools pointed unhesitatingly to the diagnosis, which was confirmed by a rising titre and falling white count.

Pulmonary tuberculosis does not feature very largely in this series, because slight fever with loss of weight and appetite rarely fails nowadays to lead to X-ray investigation. Nevertheless, one of the most puzzling cases I have met was presented by a young woman who proved to have a small cavity in the right lung with no surrounding infiltration. Her symptoms were attacks of fever (temperature, 100° F.), lasting for eight to sixteen hours. The attacks occurred about once a month, and were ushered in by shivering. There was slight loss of weight, but no cough. The only physical sign was diminution of movement of the right side of the chest. Presumably these remarkable outbreaks were due to temporary plugging of the bronchial exit of the cavity. Recovery followed the induction of a pneumothorax.

Tuberculous glands in the mesentery are, on the other hand, often overlooked for the very good reason that they may give no definite signs. Here again history is all-important. Attacks of shooting right-sided pain, intermittent malaise and loss of appetite, slight loss of weight and particularly loss of vigour are all suggestive. In an attack, localised tenderness is always present and the stools may be pale. In patients over ten years of age an X-ray quite commonly reveals areas of calcification in the right iliac fossa.

Bacillus coli infection of the urinary tract and of the gall-bladder causes a great amount of chronic ill-health and irregular fever. The urinary infection is seldom overlooked, except in infants, in whom it may cause high fever and vomiting. On the other hand, chronic cholecystitis is probably one of the commonest causes of low-grade recur-

rent pyrexia. It is usually associated with flatulent dyspepsia, but tenderness is very localised, and only to be elicited if the patient breathes deeply against the firm pressure of the palpating finger. A normal cholecystogram in the face of suggestive symptoms, and this sign, should not be allowed to influence the diagnosis.

The only other relatively common cause of obscure fever is erythema nodosum. It must be admitted that the obscurity is usually referable to the fact that the legs have not been exposed. Failure to look at a patient's legs is commoner even than failure to look for enlarged glands or disease of the breasts.

Rarer Disorders.—It has been my purpose to discuss chiefly the common maladies which produce cryptic fever, so I shall not do more than mention in passing the necessity of considering phlebitis, which may be painless and thus overlooked. Hodgkin's disease (often undiagnosable for weeks), lymphatic leukæmia, malaria, dysentery and tropical abscess, syphilis, rat-bite fever, and allied diseases. Glandular fever has always the adenitis to point the way, and sinus infection, though very common, seldom causes persistent pyrexia.

SUMMARY

1. Most cases of obscure pyrexia prove to be quite common diseases.

2. History, examination and leucocyte count will usually indicate the diagnosis.

3. Glands, bones, muscles, pelvic organs and legs must not be overlooked.

4. Certain drugs such as alkalis in B. coli pyelitis, salicylates in rheumatic fever, quinine in malaria, emetine in amœbic abscess, and N.A.B. in protozoal infections may, if all else fails, be the determining agents in establishing the diagnosis.

Although once in several years practitioner and consultant may meet a case of fever which is complex and strange, this is rare. A frank confession of diagnostic sins must include the admission that most failures have been due to careless history-taking rather than to any peculiar pathological rarity.

Eye Disease and its Relationship to General Medicine

A Paper read before the Physical Society by J. H. Smart, Esq.

(*Continued*)

CHOROID

Syphilis is also said to be responsible for most cases of choroiditis. In this condition, yellowish patches with ill-defined edges and lying deep to the retinal vessels are first seen. These patches of exudate hide the choroidal blood vessels, and so cut out the normal red reflex. Later, on account of the fibroblastic activity of the choroidal stroma, organisation occurs, and these patches become small white masses of fibrous tissue. The retinal pigment epithelium is stimulated to proliferate and so becomes heaped up round these white areas. This condition is more or less permanent. The symptoms caused by such changes are, in the early stages: cloudiness of vision and distortion of images, or metamorphopsia; and later on, when the retina is destroyed, scotomata appear which are permanent. The disease is chronic, organisation taking several weeks, and as fresh areas continue to break out, it may last for months. It is usually the result of acquired syphilis, but is sometimes seen in the congenital form, when it may be associated with interstitial keratitis. In many cases, however, the cause is obscure, and it has been laid to the charge of sepsis, anæmia and disorders of nutrition. Simple pigmentary changes may occur at the periphery in old people as a senile degeneration.

Tuberculous choroiditis occurs in acute, or miliary, tuberculosis, especially when there is tuberculous meningitis. Occasionally it is seen before there is any evidence of generalised tuberculosis or meningitis, in which case it is a useful diagnostic and prognostic point, but more commonly it does not develop until a day or two before death, or at any rate is not apparent until that time. Ophthalmoscopically the tubercles can be seen as round pale-yellow spots, most frequently in the neighbourhood of the optic disc, though any part of the choroid may be attacked. Generally only three or four spots are seen, but occasionally there may be as many as sixty or seventy.

RETINA

The term "retinitis" implies changes in the retina, often degenerative, but by no means always inflammatory. It is usually the symptom of an internal disease, and is therefore usually bilateral. Any of the following symptoms and signs may be present: changes in visual acuity, scotomata, metamorphopsia, macropsia, micropsia and photophobia. Pain is almost invariably absent. Ophthalmoscopically, a pale haziness from œdema may

be seen, with white streaks along the course of the vessels, also circumscribed yellowish areas of exudate, without pigmented margins, so that they can be distinguished from choroiditis. The veins are distended, irregular, and tortuous, as are the finer branches of the arteries. Flame-shaped hæmorrhages are common along the course of the vessels, or round hæmorrhages if they are in the deeper layers. The optic nerve may be affected, showing obscured margins, redness and swelling, so that the condition then becomes a neuro-retinitis.

The diseases most commonly causing retinitis are syphilis, as usual, also vascular disease, nephritis, diabetes and leukæmia. As the blood vessels of the retina are peculiarly liable to disease, and so give a good impression of the condition of the blood vessels throughout the body, let us consider the vascular forms of " retinitis " before going on to a more detailed consideration of the other forms.

The degenerative changes that may occur in the retinal vessels are of the utmost importance in general prognosis, as they give the first sign of arteriosclerosis, and particularly of disease of the cerebral vessels. Disease of the retinal vessels is almost invariably associated with disease of the cerebral vessels, but the converse does not hold. There is no need to give any lengthy account of the changes that may be seen in the retinal vessels, as they are all fully set out in any textbook of general medicine, but the most important signs are—" copper wiring " of the vessels, changes at the arterio-venous crossings, and white lines alongside the " vessels," indicating thickened walls and sclerosis. The changes in the vessel walls lead to increased permeability, and this, combined with the associated increase in blood pressure, is responsible for the hæmorrhages that may also be seen along the course of the vessels. Small, sharply defined white spots may also be seen on the retina, while a " star-shaped figure " may be present at the macula. This is the full-blown arteriosclerotic " retinitis," and it differs from renal " retinitis " in that it is frequently unilateral.

Such changes are mostly seen in elderly people, and in fact are seldom entirely absent, while they are specially marked in nephritis, syphilis, high blood pressure, poisoning—whether it be extrinsic from lead, etc., or intrinsic from focal sepsis. Their presence always indicates the necessity for exhaustive search for excretory or circulatory failures. The prognosis in vascular disease is better than in actual renal " retinitis," though death may result from cerebral hæmorrhage or thrombosis.

Another vascular condition that may occur is embolism of the central retinal artery. This leads to sudden and complete blindness in one eye, usually the left. Examination of the fundus reveals that the larger arteries have been reduced to mere threads, while the smaller branches are quite invisible, and the veins are little altered. A few hours later the retina becomes whitish and opaque, and the disc is blurred and abnormally pale. At the *fovea centralis*, the " cherry-red spot " can be seen, caused by the red reflex of the choroid shining through the thin area of retina. Endocarditis and mitral stenosis are the causes usually cited for this condition, but most cases are really due to thrombosis from arteriosclerosis,[10] and in these cases the onset is less rapid, and there are usually premonitory signs of obscuration of vision. Some cases also are undoubtedly due to arterial spasm, and it is these that are reputed to have made such a wonderful and miraculous recovery. Embolism may occur at practically any age over fifteen.

In thrombosis of the central vein of the retina, sight is impaired, but not so suddenly as in embolism of the central artery. The veins become engorged and tortuous, and blood escapes from the capillaries at innumerable spots, so that the retina is covered with multiple hæmorrhages, giving it its characteristic angry appearance. Vascular disease and hæmorrhages are often present in the other eye, and bilateral thrombosis may occur, but is rare. In all cases, microscopic section shows diseased vessel walls and endothelial proliferation. It occurs mostly in elderly patients with cardiac or vascular disease, and is often induced by nephritis. The blood pressure is usually high and there is albuminuria. It may, however, be due to some local cause, such as orbital cellulitis or an infective phlebitis. " The condition should be regarded as a danger signal, and constitutional investigation and treatment should be carried out assiduously."

Syphilis is one of the commonest causes of " retinitis," but usually this is " retinitis " secondary to choroiditis. It may occur primarily, however, mainly from syphilitic endarteritis. The retina is cloudy and small pigment spots can be seen, giving it a dusty appearance. The disc is hyperæmic, and white spots appear in the macular region, and at the periphery where they are bounded by pigment. The vessels are degenerate and there are white exudations along their course. Hæmorrhages are rare. The symptoms of the disease are: defective central vision, night blindness, contraction of fields, with scotomata and metamorphopsia, as in choroiditis. It occurs one or two years after the disease has been acquired,

both eyes being affected simultaneously. In congenital syphilis there may be yellowish or black pigment spots at the periphery—and this is part of the uveitis which we saw was responsible for interstitial keratitis. The diagnosis of this condition is made certain by the Wassermann reaction, and it is treated with anti-syphilitics.

" Retinitis " may complicate albuminuria, and is often the first evidence of renal disease. The only symptoms may be diminution of visual acuity and severe headaches. If the eyes are examined, a haziness of the retina and optic disc will be seen, together with hyperæmia and hæmorrhages, and the presence of " cotton-wool " patches of exudate, which later become more sharply defined and punctate. The disc is surrounded by a large white patch, which is often referred to as a " snow bank." The most characteristic change of all is the appearance of the classical " star figure," which is formed by beads of exudate in radiating lines from the fovea centralis. The formation is due to the arrangement of the nerve fibres, which are particularly abundant in this region, and so radiate widely to get to the optic disc. The vessels show degeneration, and in some cases—particularly those associated with pregnancy—there is detachment of the retina, by the formation of sub-retinal exudates, usually at the lower part of the fundus.

The actual cause of the " retinitis " is obscure. It clearly is not the result of vascular changes, for in many cases the vessels are still quite normal—as in some cases of albuminuria of pregnancy or in the rare cases associated with acute nephritis. As in all cases of obscure pathology, we have to say that the changes result from toxins circulating in the blood stream. It occurs in about a third of the cases of nephritis, the majority being of the chronic interstitial variety, and it is very rare in acute nephritis. The degree of retinitis bears no fixed relationship to the extent of kidney damage, but in all cases it is of grave significance, the majority of patients dying within six months to two years after its appearance. In albuminuria of pregnancy the prognosis is worse the earlier it starts. Artificial induction of abortion has prompt beneficial effect upon the " retinitis," but the vision is usually permanently affected, depending upon the degree and duration of the retinitis. It is, of course, liable to recur at subsequent pregnancies, and the retinal changes are usually severe.

The condition is almost always bilateral, but very rarely causes complete blindness. It is commoner in men than in women, and occurs mostly between the ages of thirty and sixty. There is a form of transient blindness which may occur in nephritis, especially associated with uræmia, and comes on suddenly and completely. There are no retinal changes to account for this.

Although the account given is roughtly that of typical albuminuric retinitis, the condition actually met with is frequently atypical, so that in all cases of retinitis it is important to examine the urine, especially as there is another form of " retinitis " which may be due to diabetes. This is actually rare, occurring in the late stages of the disease in elderly patients. There are small white spots of exudate scattered around the macular region, and these enlarge and coalesce to form larger areas. Punctate hæmorrhages are also seen, and these are round rather than flame-shaped as they are situated in the deeper layers of the retina. The vessels and optic disc are normal, and the condition is bilateral. The cause of this " retinitis " is again uncertain, and it does not seem to be due to sugar, diacetic acid, or acetone in the blood, for it does not occur in children in whom these products of perverted metabolism are most markedly present. The blood pressure, however, is usually high, so that vascular degeneration, though not marked, has been designated the cause. The prognosis in these cases depends upon the constitutional symptoms, 60 per cent. living for more than two years. Insulin treatment has no effect upon the " retinitis."

Retinitis may also complicate leukæmia, the fundus appearing orange coloured. The veins are bright red instead of their usual dark red colour, and are tortuous with white lines along them, while the arteries are small and pale. There may also be seen white patches of leucocytes surrounded by a red border of corpuscles; these may also be seen in pernicious anæmia.

OPTIC NEURITIS

There are three conditions of the optic nerve that should be considered—optic neuritis, atrophy and retrobulbar neuritis. Peptic neuritis is not a disease in itself, but a symptom of some other primary condition which must always be sought for. The changes that occur in optic neuritis are, first, an increased redness, with blurring of the edges of the disc, œdema causing filling of the physiological cup, and distension of the veins. Strias of œdema appear on the retina between the disc and the macular region. Later the disc and the surrounding retina become opaque from exudation and there are retinal hæmorrhages. Finally there is subsidence of the papillœdema, increasing pallor, and the appearance of spots of degeneration in the retina, at the macular region.

The cause of this optic neuritis may be some change in the eye itself, as in the " neuro-retinitis " of albuminuria, or it may be some intra-cranial

disease—a neoplasm, a gumma, or an inflammatory condition such as a syphilitic or tuberculous basal meningitis, or cavernous sinus thrombosis. The value of the condition is that it can be used as a sign for localising the site of an intra-cranial tumour before operating, practically any intra-cranial tumour, except those in the medulla oblongata, causing papillœdema. The point is that it is the age of the condition that counts, not the degree of papillœdema, as it may be greater on the unaffected side, the original side having already undergone some degree of atrophy. At its onset the disease is ipso-lateral, commencing on the same side as the tumour, and it then progresses through the series of changes already described; later it starts on the other side and passes through these changes. So that to localise a tumour by papillœdema, it is necessary to be able to recognise the stage to which the condition has progressed in each eye, and say which is the older. The treatment of optic neuritis is essentially the treatment of the underlying cause.

RETRO-BULBAR NEURITIS

Retro-bulbar neuritis, which means changes in the optic nerve behind the eye, may apparently occur as a toxic manifestation from certain drugs, or may be due to disseminated sclerosis, in which disease it occurs as an early symptom; also rheumatism, diabetes and septic foci may cause it, while the local causes are such things as periostitis, injection of the ethmoid or sphenoidal sinuses, or hæmorrhage into the optic sheath from a fractured skull. In these cases the condition is usually unilateral, while in the general conditions it is, of course, bilateral. The symptoms are: rapidly increasing obscuration of vision, pain on moving the eye and made worse by pressing on it, neuralgia and headache. The fundus at first appears normal, and the patient is diagnosed as hysterical, but if the pupils are examined it is found that, although they appear to react normally to light, they do not maintain it, so that if the light is continuously shone into the eye the pupils slowly dilate again. This is of the greatest diagnostic significance. The field shows a central scotoma and there may be complete blindness. In the later stages the fundus shows some papillitis, the veins are distended and the arteries narrowed. Optic atrophy may ensue.

I said just now that retro-bulbar neuritis could apparently occur as a toxic manifestation from taking certain drugs. The condition is called "toxic amblyopia," and is generally ascribed to a retro-bulbar neuritis, but experimental and pathological evidence shows that the condition is primarily due to changes in the retina. The drug apparently acts on the ganglion cells of the retina, causing them to degenerate so that they become vacuolated and lose their Nissl granules. This leads to degeneration of the nerve fibres, but this does not become evident until they have acquired their medullary sheaths, that is after they have passed through the lamina cribrosa, thus accounting for the retro-bulbar neuritis. The ganglion cells in the fovea and macular region are the ones most highly differentiated, and so are the first to suffer from any toxic effects.

Tobacco is one of the commonest causes of toxic amblyopia. It results from excessive smoking, or chewing of tobacco, and is also seen in tobacco factory workers. It is said that over-indulgence in alcohol is an important factor in its production, but cases have occurred in total abstainers, and alcohol amblyopia has occurred in non-smokers. The patient complains of increased fogginess of vision with central vision greatly diminished, but the fields remain full. Both eyes are affected, and the ophthalmoscopic changes are slight. The treatment is complete abstinence from tobacco, or alcohol, or both (God forbid!), and the prognosis is good, the symptoms rapidly clearing up. Diabetics are very susceptible to this condition.

Quinine may also have undesirable effects, 12 grains being sufficient to cause sudden and complete blindness in one who is susceptible. The maximum dose of quinine sulphate is 40 grains in 24 hours. It is seen mostly when used for malaria, or as an abortifacient, when large doses are required. In addition to the blindness, the pupils are dilated and inactive, and there is deafness and tinnitus. Examination reveals that the retinal vessels are extremely contracted, and the retina is pale and may be œdematous. On recovery the fields gradually widen out, but do not regain their normal limits. Occasionally permanent blindness results, and optic atrophy ensues. Salicylic acid may have the same effect, but not so severely. The immediate treatment is to give amyl nitrite so that there is vascular dilatation and the retina is relieved from its temporary anæmia.

OPTIC ATROPHY

Optic atrophy, or degeneration of the optic nerve, may be the result of a lesion anywhere between the retina and the external geniculate bodies. There is degeneration not only on the proximal side of the lesion, but also on the peripheral. The condition is divided into two groups, there is the primary atrophy, which occurs without any previous local inflammation, but is usually the result of disease of the central nervous system, or there may even be no discoverable disease. And

there is the secondary, or post-neuritic atrophy, which results from destruction of the ganglion cells in the retina as in retinitis pigmentosa, or destruction of the nerve in the orbit, or from break in the continuity of the nerve fibres at the disc itself, as in papillitis. In total atrophy the pupils are dilated and do not react, and the patient is blind. In partial atrophy central vision is depressed, but there are no scotomata at first, and there is concentric reduction of the fields. Primary atrophy is slowly progressive to complete blindness.

Examination of the discs in primary optic atrophy shows them to be pale, often greyish in colour, with the edges sharply defined and the lamina cribrosa often visible. There is slight cupping and the vessels are normal or slightly contracted. The surrounding retina is normal. Both eyes are generally affected. In secondary optic atrophy, the pallor of the disc is more striking, the vessels are usually contracted, and there is much organised exudate filling in the physiological cup, so that the lamina cribrosa cannot be seen. The edge of the disc is blurred by the exudate, which may also extend out on to the vessels, and may actually constrict them. Sometimes the surrounding retina may show signs of a previous pathological process, the commonest signs being some form of pigmentary disturbance.

Tabes is one of the most important causes of primary optic atrophy, and it may be the first sign of the disease. If optic atrophy occurs early in tabes, ataxia may be long delayed, or may not occur at all, but if the atrophy develops later it makes no difference to the prognosis. Both eyes are affected, and the condition progresses slowly but surely to complete blindness. The cause of the atrophy is inflammatory exudation into the intra-cranial part of the nerve, and of the chiasma. General paralysis of the insane and disseminated sclerosis also cause atrophy, but seldom complete blindness. There are certain poisons also which may cause it, and, though they might have been discussed under toxic amblyopia, they are rather different in that they cause a much more severe degree of optic atrophy. Methyl alcohol, lead, nitrobenzol and arsenic are the more important ones. Tri-valent arsenic is more toxic than the pentavalent form, and this is the reason why the salvarsan group are perfectly safe from this point of view. The prognosis in primary optic atrophy is bad.

Secondary atrophy may result from compression of the nerve by a tumour or aneurism, or from rupture of the nerve from a fractured skull, from hæmorrhage into the dural sheath, or from blood clot, so that it is a possible complication of head injury. In rupture of the nerve, vision is, of course, immediately lost, but the pallor of the disc does not develop for two to three weeks. The prognosis for vision in secondary atrophy is clearly that of the primary lesion.

MOVEMENTS

Having considered most of the parts of the eye individually, let us now consider briefly the abnormalities of movement that may occur. The subject of squint is far too large to be considered here, but there are one or two points of interest. First of all, it is useful to remember that the new-born always squint for the first few weeks of life. The reason for this is that the child does not learn to " fix " objects and use binocular vision for the first few weeks, so that each eye wanders aimlessly about, quite independently of the other, and gazing at anything that catches its fancy. Squint may also occur in fevers, or from severe fatigue. No doubt you have all experienced the phenomenon of seeing two lecturers suddenly appear, just as you are about to give up the unequal contest of trying to keep your eyes open.

ACCOMMODATION

Accommodation may be affected by fevers, the best example being the paralysis that may occur in the third week of diphtheria. The sixth nerve may also be involved about the fourth or fifth week, and, as already stated, the third nerve may be affected between the fifth and eighth weeks, causing ptosis. In all cases it is a peripheral neuritis caused by the diphtheria toxin, and they all clear up in the course of time. Spasm of accommodation is another abnormality, and it usually occurs after prolonged periods of study, particularly in weakly overworked schoolgirls.

It is uncommon to see complete paralysis of all the extrinsic muscles of the eye, only one group usually being affected at a time. The sixth nerve is the one most commonly affected, the result being an internal squint. If the whole of the third nerve is involved there is ptosis, and the eye can only be turned downwards and outwards ; accommodation is lost and the pupil is partially dilated and does not react. The commonest causes of these paralyses are : neuro-syphilis, lesions of the nerves by tumours, hæmorrhage or trauma, and meningitis. There is an interesting condition known as Gradenigo's syndrome, in which there is internal squint, trigeminal pain and mastoid disease, commonly in children. It is the result of the fifth and sixth nerves being involved in the inflammatory process of the temporal bone, as they pass over the petrous portion of it.

NYSTAGMUS

The most interesting anomaly of eye movements is nystagmus. It is usually lateral, but may be vertical or rotatory. The movements cease during sleep, and the patient is normally quite unconscious of their occurrence. Nystagmus, intention tremor and scanning speech form Charcot's classical triad for the diagnosis of disseminated sclerosis, though they are actually late signs of cerebellar incoordination. The symptoms of disseminated sclerosis are characteristically fleeting, depending, as they do, upon a haphazard distribution throughout the cerebro-spinal axis of numerous small foci of sclerosis; but the optic nerves are affected much more frequently than the space they occupy in the white matter would lead one to expect. In the earliest stages there may be a monocular, retrobulbar neuritis, and this is often the first sign of the disease. Permanent impairment of both eyes, however, is fortunately rare. Nystagmus from interference with the fibres connecting the vestibular and occulomotor nuclei, though seldom noticed by the patient, is present in 75 per cent. of cases,[12] and is one of the most classical signs of the disease. The condition has to be diagnosed from hysteria, and this can be done on the presence of nystagmus or optic atrophy, as well as other signs. Cerebellar tumour may also give a similar picture, but in this the signs are referable to a single lesion, and there are signs of increased intra-cranial pressure, ophthalmoscopically and otherwise.

There are innumerable other causes of nystagmus, vestibular nystagmus being one of them. This can be produced in various ways, such as rotating the patient in a spinning chair, or syringing the ears with hot or cold water. In this form the deviation is slow and the return rapid, while with other forms the movement is equally rapid in both directions. This sign may be of great value in estimating inflammation of the mastoid antrum.

OCCUPATIONAL

Before concluding this paper, a brief word on occupational ophthalmia may be interesting. The classical example of this is miners' nystagmus, which affects those who have been working at the coal surface for a long time. It is a very disabling condition, and is most marked at night. There is defective vision, dancing of lights and movements of objects, severe headaches, and photophobia. It is a rotatory nystagmus and very rapid. In severe cases there is ptosis of the lids, and the head is thrown backwards in an attempt to see beneath them, and there is tremor of the head and eyebrows. The cause of the condition is uncertain, but it is suggested that working in awkward positions, with the eyes constantly looking upwards, is one of the causes, while another factor is said to be the necessarily poor illumination. If one tries to see a dim star clearly at night, looking directly at it seems to make it disappear, but if the line of vision is directed a little to one side of it, the star can then be seen clearly. The same is supposed to happen in coal mines where the safety lamps give only a very feeble light, and the black walls throw back very little of it. The miner is, therefore, constantly moving his eyes in order to see his work better, and never looking directly at it. Which is the primary cause is uncertain, but a very impressive point is the fact that nystagmus occurs six times more commonly in mines that use the Davy safety lamp than in those that use the naked flame for illumination.[13] It is a cause of enormous economic loss in compensation.

Another occupational disease is glass-workers' cataract. This is a posterior cortical cataract which is seen in men who have long been engaged in making beer bottles or plate glass. It does not occur in flint-glass workers, the working temperature being much less in these cases. The radiations from the molten glass contain few ultra-violet rays, so that they are probably not the cause. It is more likely that the heat is responsible, not acting directly upon the lens, but through the medium of the iris, which has a great capacity for absorbing heat radiations by means of its pigment epithelium, so that the normal nutrition of the lens is upset. The disease is not confined to glass workers, but also affects metal workers, particularly chain makers, for in this work it is essential to look at the hot metal.

Another condition which might be included under the heading of occupational disorders is detachment of the retina in boxers. As a result of the repeated blows on the head, the boxer either suffers from multiple minute hæmorrhages over the surface of the brain, which cause mental deterioration, or else he has to retire on account of detachment of the retina.

Finally, then, it is quite obvious that the disease which causes most eye complications is syphilis. Not only does it affect all the constituent parts of the eye, but it may also cause even worse complications from involvement of the central nervous connections.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

The Odd Article

I WANT to invite your opinions on Second Sight, Psychic Sense or Spiritualism—call it what you will. You may suggest that this is hardly of light character; perhaps not, but it is interesting, which is all that matters. First of all, you must realise that the writer of this is just a very ordinary person, who lives in an ordinary little house, drinks ordinary beer and lives a very ordinary life—in fact, just like 99 per cent. of other Guy's men who eventually settle down to earn their own living. I mean to say there is nothing very spiritual or super-sensitive about my temperament. I am just a very ordinary person. Now, I have a habit of dreaming things in advance. I have a dream, and the next day the dream often materialises. Unfortunately, this has never been of much use to me, the dreams have not been very much out of the ordinary, but they must have been striking. On account of space I merely give one example :—

I dreamed I was hurrying up to Guy's in an ambulance with someone who was very ill, and as we approached the Hospital there was some band that was blaring out a tune. The dream distressed me very much, and I awoke with a feeling of depression.

The dream materialised a few days later. Now with one example you may say, " Just coincidence," but I could mention any number.

I have not been sufficiently interested to look up the subject, but I have wondered whether anyone has tried to explain it and also whether other people are afflicted with this peculiarity.

One often reads in the paper of people who dreamed that the boat on which they were going to sail was wrecked, so they postponed their sailing and were saved, or some such thing, but do they make a habit of these dreams, and, if so, what is the explanation?

Perhaps Dr. Gillespie may have views on the subject.

From April to December, 1922, I was living at the house of a charming old lady, the widow of a clergyman. One evening I learned to my surprise that she often looked in the " crystal " for friends and read the cards for them.

Well, personally, I am, or rather was, sceptical on such matters, and when one day she offered to look in the " crystal " for me, I said, " By all means, but I am writing it all down ! "

I am afraid you must accept it from me that the things she told me all came true in a very short time, and things by no means commonplace —the tragic death of the son of a friend of mine (she had met this friend a few years before and she mentioned his name), the son was accidentally shot a few weeks later; the visit of the Prince of Wales to Guy's, and that I should shortly leave the staff of one hospital to join the staff of another (this happened a year later).

She was not, however, always accurate in her deductions. She told me I would shortly move my consulting-rooms to the West End. I asked what made her think so, and she replied : " Well, I think it must be that because I am with you in a large room which looks just like those in Harley Street." She described the room in detail.

A few weeks later, on account of ill-health, I took her to see Dr. Fawcett. On entering Dr. Fawcett's consulting-room we looked at one another. It was the room she had so accurately described.

Now what is the explanation? It is not coincidence or guesswork. Even a sceptic like myself cannot but be impressed when you come up against a genuine case like this, can you now? And yet if you believe in such things you must believe in destiny, which is all very trying.

I could mention many more things this extraordinary yet charming old lady foretold. She could have made a fortune if she had done it professionally—or else got six months—but it was only to personal friends that she would tell the future. However, you must accept it from me that it was all perfectly genuine, and I ask all the expert psychologists at Guy's: What is the explanation of all these dreams and seers of the future?

I trust correspondents will not write to the *Gazette* deploring the ignorance of " Ixworth." Has he not read Pavlov on the subject?—because he very definitely has not. He is just a very ordinary person who likes playing Bridge at 1*d.* per 100 with Mr. and Mrs. Smith next door, who wonder whether they have blood pressure and doesn't Mr. Ixworth think Greta Garbo too, *too* wonderful? As a matter of fact, Mr. Ixworth hates Greta Garbo.

IXWORTH.

Correspondence

Rugby Football

To the Editor of the GAZETTE

SIR,—I have read with much interest the correspondence on the apparent decline in the standard of rugby football at Guy's and the corresponding lack of support to the XV.

I had been waiting with eagerness and anxiety the visit of Guy's to Gloucester. Gloucester, in contrast to their visitors, is one of the best sides in the country, and were nearly at full strength against Guy's.

The Hospital team was only beaten by eight points, and the run of the play hardly indicated the difference between the teams.

I have talked the game over with many of the rugby enthusiasts here—and the West Country spectators *do* know the game—and the remarks were most encouraging to Guy's. On every side one heard the remark, "The better side lost," and "It is difficult to understand why Guy's Hospital has such a bad record."

Guy's has the making of a really good side, and talking the subject over with so eminent a player and judge of the game as Tom Voyce, the main reasons for non-success would seem to be: (1) Ragged packing; (2) Lack of team spirit in not backing up the weak spots, especially in the line-outs; (3) Not helping the scrum half by quicker heeling, and (4) the inevitable lack of training.

The game here was lost by failures to take the final pass. The material is there, and the team is finely led by a captain who knows all about the game.

I should like to congratulate the team on an excellent performance at Gloucester, and sympathise with them in having had to pass through a "bad patch."

I believe the cause of the bad record is psychological; if they are supported as they should be, and lose the inferiority complex, for which there is no justification, the team is quite good enough to win the Hospital Cup.

It is only my keenness to see this achievement and my intense interest in Guy's rugger which prompts me to write this letter.

Yours, etc.,

ARNOLD ALCOCK.

146, London Road,
Gloucester.

The National Dental Students' Dance

THE First Annual Dance of the National Dental Students' Society (London Branch) was held at the Chesterfield Salon on Friday, January 28th. This is the first function held by the London Branch of this new society, and was enjoyed by all.

The numerous dances held this season made the disposal of tickets a problem. The absence of enthusiasm, however, did not damp the ardour of the stalwart secretary, Montagu Malleson. He, in spite of this and the grave warning of disaster in a roar from Borealis, Esq., on the night of January 25th, decided that the "show must go on." Let it be known to his credit that his debit did not exceed it.

As the Guy's Dental Society are responsible, this year, for the organising of all the new society's functions, we are grateful to our secretary for his efforts.

We were honoured by the presence of the Quality of the Faculty, which included the President, Mr. W. E. Herbert, and members of the staffs of the various hospitals.

Those fortunate enough to be present will long remember treading a measure in the Hall where once danced the dandies and ladies of the great Victorian era. The band appropriately played one or two old-fashioned waltzes, while the more prosaic moderns with parched palates stole silently to the bar.

N. FISON CLARKE.

Debating Society

ON January 25th, a debate in conjunction with the Royal Free Hospital was held in the Nurses' Home. The motion before the House was: "That this House would welcome co-education, and the admission of Women into the Medical Schools." This was defended by Miss Singer and Miss Roberts, and opposed by Messrs. D. Stafford-Clarke and I. Stewart. It eventually was carried by 38 votes to 30, a large number in the House not voting.

The contingent from the Royal Free was larger by far than that from the Hospital, and this almost certainly accounts for the result of the voting.

We hope, in future, that more Guy's men will be able to support the Hospital in debates with outside bodies.

B. D. J.

Sport

Rugby

Guy's v. Coventry

(*At Honor Oak Park on Saturday, January 22nd*)

THE return fixture with Coventry proved a great attraction, and although the Hospital more than held their own after the interval, they had to admit defeat by 2 placed goals, a dropped goal and 2 tries (20 points) to a try (3 points).

Both teams fielded their strongest available sides, and the powerful Coventry pack, which included several Internationals and Trial Caps, proved a big factor in their win. In Purchas and Seaton they have two magnificent back-row forwards, who were always to the fore in the loose, and they were a continual source of trouble to Stanyon-Jaques, who was handicapped by the slow heeling of the Hospital pack.

However, the man of the match was J. L. Giles, the International scrum half, who was the best back on the field. He was the inspiration of his side, and nearly all the visitors' scoring was the outcome of his clever tactics and thrust.

On the other hand, Guy's had far more of the game than the score suggests, and as the game progressed the Hospital back division proved equal to their opponents, and only sheer bad luck prevented them from scoring on more than one occasion.

During the first half Guy's had to face the breeze and sun, and for ten minutes after the kick-off they had to oppose some terrific onslaughts, which the Hospital did well to check. However, Coventry's first score followed a wild scramble in front of the posts, and Giles gathered, crashed through a bunch of players to register a try under the posts, which he converted.

Allen, Dick and Babrow made great efforts to get through, but Kenyon, Wheatley and W. Jones tackled magnificently and seldom allowed the attacks to develop.

Coventry resumed the offensive and, following a sharp bout of passing in Guy's 25, the ball eventually reached Kenyon, who, finding himself unmarked, dropped a perfect goal.

The visitors compelled Guy's to remain on the defensive, and shortly afterwards Giles created a fine opening for Harris, who raced in behind the posts, for Giles to add the goal points.

Towards the interval Guy's improved considerably, and first Babrow thrilled the crowd with a dazzling run and then Dick crashed through the centre and looked certain to score, but Kaye came across and just caught him five yards from the line.

A little later Dick nearly converted a penalty kick, but the wind proved too strong and the visitors cleared easily.

Guy's started the second half in grand style, and soon found a footing in Coventry's 25. Attack after attack was launched, and one had visions of the Hospital pulling the game out of the fire, but they received a further setback when Wheatley, Seaton, Purchas and Harris led a dashing raid from their half and eventually A. Wheatley crossed for an unconverted try.

Splendid kicking by Allen and Crawford placed the Hospital in a favourable position, and eventually Guy's reduced the lead when Forbes, Vidot and Darke stormed their way into Coventry's 25. Some splendid passing followed, and finally Dick seized one of few opportunities that came his way and went through like a torpedo, swerved past the full-back, and scored a glorious try.

Encouraged by this success, Guy's continued to have the better of the game, and in the loose the Hospital forwards were holding their own well against their more formidable opponents. Babrow, Yerbury, Darke and Dick all came within striking distance of the line, but Coventry's solid defence held out, and near the end Giles relieved the pressure with a grand kick to touch, and finally initiated a movement which sent Nicol over for a try near the corner flag.

Team.—J. P. Crawford; D. M. Douglas, L. Babrow, R. C. S. Dick, A. B. Baxter; R. D. Allen, K. A. Stanyon-Jacques; J. R. D. Williams, E. S. Nicholson, H. H. Crabb, P. Fletcher, A. Forbes, R. O. Yerbury, C. Vidot, C. S. Darke.

Guy's v. Cambridge University

(*At Honor Oak Park on Wednesday, January 26th*)

CAMBRIDGE included seven Old Blues in their side for the return fixture with the Hospital and after the first ten minutes they took the measure of Guy's and deservedly won by 2 placed goals, 2 penalty goals and 3 tries (25 points) to nil.

Several positional changes were made in the Hospital's back division, and Babrow was moved to fly-half, Allen to full-back, and Crawford to his old position on the wing, but although these alterations were successful up to a point, the experiment was not satisfactory as the forwards

heeled so slovenly that the play of Stanyon-Jaques and the rest of the backs suffered accordingly.

Although facing the wind and sun, Guy's started full of confidence, and for the first ten minutes Cambridge were kept busy defending well inside their 25. On two or three occasions the Hospital came within an ace of scoring, but, having weathered these early onslaughts, Cambridge settled down and during their first attack Forrest kicked a magnificent penalty goal from near the touch line.

Within three minutes the Varsity increased their lead, when Bruce-Lockhart eluded Dick, passed to Parry on the open side, and Downes was up to score a try, which Forrest converted.

Guy's rallied for a time, but several good movements broke down at the last moment, and eventually Forrest kicked another penalty goal from forty yards' range.

Near the interval Downes broke through again, and Parry accepted a neat pass and punted ahead. Forrest was up to gather, and eventually he sent in Parry for a grand try, which Forrest converted.

With the advantage of the wind, Guy's gradually worked their way into the Cambridge 25, and Baxter was held up on the line. Judicious kicking by Downes and Bruce-Lockhart sent Guy's back, and, following a loose scrum, the ball was passed to Downes, who deceived the Hospital defence and, although checked by Allen, he managed to send out a long pass to Mallett, who scored almost unmarked, but Forrest missed the kick in front of the posts.

For a long spell Guy's had most of the play, and several times Dick nearly got clear as well as through, but the 'Varsity covered up splendidly and spoiled several promising openings.

One one occasion Forbes started a movement which was carried on by Dick, Kynaston and Crawford, but the final pass was dropped.

Loose marking in a line-out gave Cambridge the chance to score again. Parry was allowed to force his way over unsupported, and finally Bruce-Lockhart, Spencer and Steads took part in a passing movement which ended in Steads scoring another unconverted twy.

Team.—R. D. Allen; A. B. Baxter, R. U. F. Kynaston, R. C. S. Dick, J. P. Crawford; L. Babrow, K. A. Stanon-Jacques; H. H. Crabb, E. S. Nicholson, J. R. D. Williams, A. Forbes, P. Fletcher, C. S. Darke, C. Vidot, R. O. Yerbury.

Guy's v. Gloucester

(*Played at Kingsholm, Gloucester, on Sat., Jan.* 29th)

PLAYING attractive football from start to finish, Guy's may consider themselves unfortunate to be beaten by a placed goal, a penalty goal and a try (11 points) to a try (3 points), and, judging by their display in this game, it is difficult to understand how it is the Hospital have experienced such a lean season.

Their back division was certainly smarter and more skilful than Gloucester, and in the second half with the wind behind them they overpowered their opponents to such an extent that it would have caused no surprise had the Hospital taken the lead.

At the last moment, Guy's had to rearrange their pack, as one of the forwards missed the train, and D. M. Douglas was brought into the back row to complete the side.

Once again Guy's lost the toss and had to face the wind; however, in the early exchanges this handicap did not appear to worry them.

From the first scrum Guy's heeled, and the ball was rapidly transferred to Baxter, who punted ahead, but Hook gathered and raced away with a clear field, but Douglas overhauled him and brought off a splendid tackle.

The heavier Gloucester pack was now securing the ball in the set scrums, and on one occasion Meadows managed to get in a nice run before he was brought down.

Following a brief attack by Guy's, Tanner raced across and checked Kynaston, and, following some splendid passing between the Hospital three-quarters, Baxter tried hard to get past Hook, but dropped the ball.

Following loose play, Hook gathered smartly and, after a thirty yards' dash down the wing, he managed to score in the corner, and Boughton converted with a grand kick from the touch-line.

This unexpected success encouraged the home side and very shortly they increased their lead, when Dick, one of the Gloucester forwards, punted over Plowman's head and Morris and A'Bear dribbled the ball over the line, for the latter to score an unconverted try.

At this stage Gloucester pressed heavily and, following good work by their forwards, Tanner just missed a try following a high punt over the line, but soon afterwards Guy's were penalised on their 25, and Boughton kicked another fine goal.

Guy's now began to warm up and subsequent play was fast and spectacular. Several excellent movements were carried out by the Hospital back division, and after Plowman had missed a penalty, Stanyon-Jaques intercepted a pass and set the Hospital threes in full cry for the line. The ball was handled cleverly by backs and forwards, but the final pass to the right wing went astray.

Guy's continued on the aggressive, and further brilliant combination looked certain to produce

a try, but Boughton stepped in at the critical moment and Gloucester escaped.

The Hospital stuck to their task and eventually success came their way when Crawford cut through the centre and drew the defence before giving Baxter a perfect pass, which carried him over for a try, which was not converted.

Just before the interval Guy's should have increased their score when Stanyon-Jaques broke through cleverly from his own 25 and sent Crawford away on the wing. Following some brilliant exchanges, a try appeared in sight, but with only a few yards to go the ball was dropped and a grand opportunity lost.

The second half was nearly all Guy's, and from the restart Crawford ran splendidly and passed to Dick, but the latter's pass was knocked on when a try seemed possible.

A penalty kick helped Gloucester to relieve the pressure for the time being, but Guy's returned to the attack immediately, and the home team were overpowered by the Hospital's smart movements and played strictly on the defensive.

Although Guy's were playing brilliant football, they could do everything but score; only on rare occasions were the home side allowed in the Hospital's territory.

In the last few minutes Gloucester rallied, and a cross-kick by Meadows looked dangerous, but Dick anticipated the movement and tackled Hook just as he fielded the ball.

Boughton tried to land a penalty goal and Hook came near with a drop-goal, but no further score resulted, and, although defeated, Guy's are to be congratulated on their excellent display.

Team.—R. D. Plowman; A. B. Baxter, R. C. S. Dick; L. Babrow, R. U. F. Kynaston, J. P. Crawford, K. A. Stanyon-Jaques; G. P. A. Sechiari, E. S. Nicholson (captain), H. H. Crabb, J. R. D. Williams, A. Forbes, R. O. Yerbury, C. Vidot, D. M. Douglas.

Hockey

INTER-HOSPITALS' CUP

GUY'S *v.* BART.'S

WE must meet Bart.'s again in the Cup. After extra time in a fast and even game at Honor Oak Park on Tuesday, January 18th, each side had scored once. Possibly this was the fairest result, although Guy's were attacking so much during the second period of extra time that a replay should not have been necessary.

Much credit is due to Mr. Kirby for getting the ground in such good condition after the heavy rain, but, even so, it cut up badly in the later stages, and ball control was difficult. Guy's were the first to attack, and were soon ahead, Roberts having an easy chance from a few yeards out. For a time, Guy's had all the play, but Bart.'s gradually came into the picture more and caused our defence uneasiness. Griffin had little to do, so well was he covered by the defence, in which Leeming and Astbury were brilliant. Bart.'s deservedly equalised about ten minutes before half-time, rather luckily, the centre-forward taking a mighty first-time shot at a centre from the right. The ball entered the top right-hand corner of the net, an impossible shot to save. No one was more surprised than the centre-forward. The remainder of the play in this half was in midfield, neither goal being threatened.

The second half throughout was as even as it could be, play swinging quickly from end to end. A feature of the game was the dominance of the defences over the attacks, so that there were very few attempts at shooting. Leeming was unlucky with two short corners, which were well saved by the Bart.'s goalkeeper, and Bough missed an open goal with the ball running difficultly for him. A penalty bully should have been awarded to us when the Bart.'s back pushed a shot out of goal with his hand. At the other end, Bart.'s had one or two chances, but generally our defence was well on top. We were lucky when a Bart.'s shot hit the post and bounced outside

Extra time was played with ten minutes each way. The first half was very even, and neither side deserved to increase their score. During the second period, Guy's should have clinched the match, since we attacked practically all the time, but all credit must be given to the Bart.'s defence for an excellent display in the closing stages.

Our captain, Franklin, was unfortunately again away through injury. Leeming took the captaincy and played really well. Astbury and Thorne have seldom played better, but the wing halves, particularly the right, allowed their wingers too much scope. The forwards were the chief weakness in the team. Cox did not run so well as usual, and he delayed his centres too long. We missed the brilliance of Franklin on the other wing. The three inside forwards were rather slow, particularly in passing, perhaps because they had not played together in this combination for some time.

The replay will take place at Chislehurst some time next week, probably on either Thursday, February 3rd, or Friday, February 4th.

Team.—B. P. Griffin; J. S. Astbury, T. C. Thorne; E. Smith, J. A. Leeming (Captain), H. A. Buck; B. M. Cox, D. G. E. Roberts, E. J. Martin, S. G. McCallin, G. C. Bough.

Hospital Cup Replay

ON February 3rd, Guy's met Bart.'s in the replay of the second round of the Hospitals' Cup, and amply avenged the previous draw of 1—1 by winning by 5 goals to nothing.

Playing this time on our opponents' excellent new ground at Chislehurst, and without the great help of Leeming (injured) at centre half, we were anticipating a hard fight. The prospect was, however, brightened by the return of Franklin, our captain, at outside right, now quite recovered from his injury.

Franklin won the toss and decided to play up the hill and against the sun in the first half, a decision which was amply justified by the run of the game.

The first half was, in the words of our umpires, scrappy, but Guy's were chiefly concerned with keeping out the opposing attack. There were one or two anxious moments, but the defence was solid and played magnificently throughout the game. The pace was fast from the onset, Guy's forcing as much as possible to try to tire their opponents by half-time. The ball constantly travelled up and down the field in a long-hitting, open game, Thorne's and Astbury's clearing being delightfully hard and accurate. So well did Guy's hold the Bart.'s team that on one occasion Martin actually scored, but was given " off-side."

At half-time (0—0) Guy's were plainly the fitter team, and, encouraged by many exhortations from our captain, by the sharp tang of lemons in the mouth, and by the loud applause of Kirby, our one faithful supporter, we set to with greater energy than before.

Guy's pressed from the start, but the Bart.'s defence was sound for the first ten minutes in spite of good play by the three inside forwards. The first goal was made by Franklin, who executed one of his fine dribbles in a confined space near the circle, and got in his shot which was well saved by Akeroyd in goal. Martin, however, was following up well and put the ball in. Then came one of Franklin's breakaways from a pass upfield; he beat his man and the backs, and shot well from the edge of the cirlce. A few minutes later Cox ran down the other wing, cut in to the edge of the circle, and shot. The goal was saved, but he got in a second shot from the follow-up to make the score 3—0.

During this goal-scoring phase of the game the backs had not had much to do, but from now on Bart.'s staged breakaways from the Guy's attack, Heyland, at inside right, being particularly dangerous. A slight injury to the centre-forward, however, robbed the Bart.'s attack of a little of its sting, but the Guy's defence deserve great credit for checking many potentially dangerous runs.

We were then treated to one of Martin's spectacular runs through the middle of the field. Zigzagging and using his reverse stick with great effect, he ran right through the defence, drew the goalkeeper, and put in a delightful reverse stick shot from an angle. Martin again found himself unmarked near the edge of the circle shortly before time, gathered the ball from a well-placed pass from one of the insides, and put in a decisive first-time shot, to win the game by five goals to nothing.

Especially in the second half, the side combined excellently and played so well that it would be unfair to single out any special department for praise. But credit must be given to the forwards for the way in which they got moving together, for the great improvement in the short game of the insides and for their hard-working tackling-back.

We look forward eagerly to meeting St. Thomas's in the semi-final in March, realising that we shall have to find form quite as good as this to be sure of beating them.

Team.—B. P. Griffin; J. S. Astbury, T. C. Thorne; D. G. E. Roberts, A. C. Greene, H. A. Buck; B. M. Cox, G. C. Bough, E. J. Martin, S. G. McCallin, J. B. Franklin (captain).

Results.—

v. Lensbury, January 15th (away). Drawn, 5—5.
v. R.A.F., Halton, January 22nd (away). Won, 5—0.
v. Clare College, January 26th (home). Won, 1—0.
v. R.N.C., Greenwich, February 2nd (away). Won, 7—4.
v. Sevenoaks, February 5th (home). Won, 3—2.

Record (to date).—Played, 24; won, 17; drawn, 3; lost, 4; goals for, 100; goals against, 44.

N.B.—This season the Hospital is proud to claim that, with the South Saxons, it shares the honour of being the first side to score 100 goals. The South Saxons, playing at St. Leonards, have a better record than we have, as they have played fewer games, but we feel that this is a sign of the improved standard of the Club shown in the last few years.

It is perhaps worthy of note that this follows a similar record by the Second Eleven two years ago. A number of the members of that team are now playing for the First Eleven, indicating that the Club is training its own players and not relying upon ready-made players coming up. The first depends to quite a large extent upon the second for its recruits.

Ice Hockey Club

IT has been suggested that an Inter-Hospitals Cup should be presented in order to "boost" hospital ice hockey. Well, at the end of last season Sir Arthur Stanley, the Treasurer of St. Thomas's Hospital, very kindly offered to make this suggestion real. Now this question arises: Is it worth while spending Sir Arthur's money to supply a cup for St. Thomas's and Guy's Hospitals to fight over, no other hospitals at the moment being able to raise a team? So, is it worth while?

What the final decision will be we do not know, but games have been arranged and will be played each year to gain the honour of holding this cup, be it real or mythical.

On Thursday, 27th January, the first of these games took place at Harringay Arena. The usual method of time-keeping was used, there being three twenty-minute periods changing ends in the middle of the third period.

The game went through without incident, and to onlookers must have appeared to lack that super-effort one expects from ice hockey.

The result of the first match was 4—0 against Guy's, but no one is downhearted, yet.

On Sunday, 16th January, the United Hospitals lost the first of the London-Provincial League matches. The match was played at Brighton against Sussex. Result, 4—1.

Guy's Hospital defeated the London All Blacks at Harringay on Sunday, 29th January, by three goals to one. This was a remarkable effort. Never before have the Guy's team beaten the All Blacks, but this time with the Guy's team two men short the victory was more praiseworthy than ever. With the same quality of play all future matches are in the bag (cabinet really, as all players were Dentals).

Special praise goes to the goal-minder, Mr. Cox, who relieved many a tense moment admirably; also to Mr. Bromley, our smiling back.

The team was—I. Ross, J. Lee, G. Hancock, J. Stoner, — Booth, P. Bromley, H. Hall, B. Cox.

Hospital Information, etc.

Notice

THE GOLFING SOCIETY

THE Dinner and Annual General Meeting of the Golfing Society will take place at Anderton's Hotel, Fleet Street, on Friday, February 25th. The Annual General Meeting will precede the Dinner and will start at 7 p.m. Mr. Bromley, the President of the Society, and Dr. Knott have kindly accepted invitations to attend.

It is now some time since the last Golf Dinner was held, so we expect that its revival this year will be particularly well supported. Nevertheless, there must still be plenty of golfers at the Hospital who have not added their names to the list posted up in the Colonnade. So all of you who play at all come along and join us at Anderton's on the 25th. If anyone is still doubtful, further particulars can be obtained from P. D. Spooner or T. N. Praat in the Conservation Room.

Pass List

UNIVERSITY OF OXFORD.

The following Degree has been conferred.

DOCTOR OF MEDICINE.

A. M. G. Campbell.

SOCIETY OF APOTHECARIES OF LONDON.

FINAL EXAMINATION.

January, 1938.

Medicine.

G. E. King-Turner.

Midwifery.

A. J. Patenall.

Papers by Guy's Men

T. Rowland Hill. Two cases of leaking congenital intracranial aneurysm; Ligature of internal carotid artery. *Proc. Roy. Soc. Med.*, 1938, xxxi, 215 (Sect. Neurol.).

C. Lambrinudi. Plastic operation for congenital absence of thumb. *Ibid.*, 181 (Sect. Orthop.).

C. P. Symonds. Hydrocephalic and focal cerebral symptoms in relation to thrombo-phlebitis of the dural sinuses and cerebral veins. *Brain*, 1937, lx, 531.

R. O. Moon. Varieties of cardiac dyspnœa. *Pract.*, 1938, cxl, 197.

Changes of Address

C. G. Pantin, M.B., B.Ch., Holmlea, Woodbourne Road, Douglas, I. of M.

Dr. J. J. Conybeare from Warden's House, Guy's Hospital, to 14 St. Thomas's Street, S.E.1.

Births

MILL.—On January 5th, 1938, at 27, Welbeck Street, W.1, to Nancy (née McKenzie), wife of W. A. Mill, M.S., F.R.C.S.—a daughter.

HAMILTON.—On January 29th, 1938, at Nuffield House, to Page (née Haskell), wife of Henry Alexander Hamilton, B.Ch.—a son.

Death

SMITH.—On January 30th, 1938, W. H. M. Smith, M.R.C.S., aged 64 years, at Sannox, 231, Selhurst Road, South Norwood.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

NEXT month it is probable that the second part of the Rebuilding Fund Appeal will be launched. Our readers will no doubt remember that the Appeal was originally introduced in July of 1936, when it had an immediate and encouraging response from the public, for during the first fortnight no less than £20,000 was received. For some time this high average was maintained, but during the last year the donations have been coming in spasmodically. This falling off was probably in part due to the economic depression unfortunately prevalent throughout the world during the past year. During the nineteen months of the first phase of the Appeal just over £200,000 has accrued, and in this figure must be included Lord Nuffield's provisional gift of £80,000. It is evident, therefore, that the Appeal has not been an unqualified success, and it is for this reason that the Hospital has once again to advertise its needs.

Some weeks ago we propounded the thesis that the future of the voluntary hospitals could be secured on a satisfactory basis only by an Act of Parliament which would guarantee them a financial security while enabling them to continue their work as independent institutions and keep their respective individualities. We see no reason to modify in any way our view of this matter, but it must be recognised that the problem confronting this and many other hospitals is not one for which a solution may be postponed until that day when a permanent and satisfactory arrangement will have been achieved. The problem, rather, is an urgent one and consists in raising sufficient funds immediately to enable Guy's to keep its wards open and to have buildings and equipment sufficiently modern to insure the maintenance of that high standard of therapeutics and service which it has always been famed to give.

We therefore have no hesitation in offering our wholehearted support to this second phase of the Appeal, and we would urge all our readers to do all in their power to help in every possible way the efforts of the Appeal Committee. This may be done by ensuring that the Appeal is given the utmost publicity by all of us.

As a part of the Appeal a booklet has been published which sets forth the objects which its intention it is to achieve; these are briefly: The rebuilding of the Surgical Block at a proposed cost of just over £200,000; additional accommodation for wardmaids costing £20,000 and for which a balance of £18,260 is needed; the reduction of our existing debt for which £83,238 is still required.

As well as this brochure there will be a special letter of appeal signed by the Treasurer, Lord Nuffield, and a widespread press advertising campaign.

We hope this phase will be a success, and will attain its object of raising the necessary £300,000 to make the whole Appeal a finished achievement, but we still hope that it may be possible to ensure by some more radical measure that the future of the Hospital may rest on a firmer foundation than we imagine this Appeal will give.

▭

YOU will all have seen that our Special Correspondent in China made the headlines last week with his deeds of derring-do. We sympathise with Mr. Hankey in having to operate in so uncongenial an atmosphere, but rejoice that he is encountering those difficulties and gaining experiences which we knew would be of interest to our readers. We must give thanks for a

training so perfect and so rigorous that the mere fact of bursting bombs will not shake the cool mind or the steady hand.

We hope to publish more of our correspondent's dispatches, and in the meantime would wish him good health and a happy issue out of the shambles of war.

▭

IT is pleasing news to report that in a short time the authorities will bring their minds to bear on existing conditions in the College, for one day last week representatives of Residents and other inhabitants of that building met at the invitation of the new Warden to compile a memorandum of proposed improvements. This is to be put before the College Committee and it is hoped that the wheels will begin to move although we must remind you that anything done in the near future will be of a comparatively modest kind and no one should expect to see the housebreakers at work just yet. We look with favour on any work done, however small, to brighten up this dreary place, and trust the Committee will look upon the suggestions with a kindly eye.

▭

WE have just heard of an interesting gift to the Hospital. Mr. Lusty, of Birmingham, hearing of the shortage of bicycles for the use of the midwives on the nurses' and students' districts, has given a whole fleet of machines. We are pleased to hear that the nurses will no longer have to walk to their cases and that the Externs will cease to endanger their lives on the present boneshakers. The days of the smaller holders of the appointment of R.O. Charity needing the assistance of the porter to mount their enormous bicycle are happily ended, for they also will have one of the new machines. We thank Mr. Lusty for his magnificent gift, and wish Godspeed to the midwives.

Bicycles are in the news this week, for we have received from a correspondent a cutting from the *Kent Messenger* to remind us that a past President of the Guy's Hospital Bicycle Club is nearing his ninetieth year. We refer to Mr. C. H. Golding-Bird, one-time surgeon to this Hospital.

Our correspondent tells us that in 1898 Mr. Golding-Bird invited members of the Committee of the Bicycle Club to his house in Queen Anne Street, where he declared his intention of becoming a specialist, but that he felt that the only organ left in which he could specialise was the umbilicus. He would never go out with the Club, his excuse being that, as President, it would be undignified for any other member to overtake him on the road, and that the resulting pace would be funereal.

He now lives at Meopham, in which peculiarly charming old Kentish village he is deeply interested, and about which he has written a history.

Let us pause for a moment, close our eyes and conjure up a picture. A group of heavily moustached young gentlemen in high buttoned Norfolk suits and deerstalker caps leaning against their bicycles in the Front Quadrangle congratulating themselves on such a glorious summer day while they wait for the late arrival. Here he comes at last, running down the Colonnade. With a farewell wave they mount their machines and sweep out of the gates, an orderly group, the measured rise and fall of knickerbockered knees in unison with the musical clip-clop of horse traffic in St. Thomas's Street. Dare we picture the tight waist and full skirts of a lady sharing a tandem. Ladies and gentlemen, you may open your eyes to wish Mr. Golding-Bird many happy returns of the day in his beloved village remote from the screaming exhaust and petrol-laden air.

The Child in the Dental Surgery

A Paper read before the Guy's Hospital Dental Society on Thursday, 18th November, 1937, by R. D. Ogston, Esq.

MR. CHAIRMAN and GENTLEMEN,—In this paper I do not propose to deal with the technique and operative procedure of conservative and orthodontic measures, other than to mention a few methods of avoiding trouble from the patient.

At the outset it is obvious that in the treatment of children it is not only desirable to give adequate advice to the parents, but also a simple explanation of the method of treatment and of the necessity for early attention to the teeth in order to preserve the general health of the child throughout its whole life.

The average adult's knowledge of prophylaxis is very scanty or non-existent, hence it is very necessary to explain both to parent and child the correct use of the tooth-brush. This is most easily done with the aid of a toothbrush and some plaster models; the brush being made to rotate against the teeth surfaces with the bristles passing from the gums to the teeth.

After mentioning the importance of cleaning

the occlusal surfaces (and in adults the buccal and distal aspects of the third molars), advice should also be given as to the type of brush, times of use, and the kind of powder or paste.

The question of diet is another matter on which to advise parents. It is important in relation to the developing teeth and bones, maintenance of health, and the prevention of endocrine disturbances. Fresh fruit, vegetables, cod liver oil and their contained vitamins should be mentioned. Expectant and nursing mothers should be told of the importance of breast feeding, in that it provides a greater resistance to caries in the permanent teeth, and helps to develop the normal contour of the jaws and occlusion of the teeth.

The parent should be told that it is a good thing for the child who is on a full diet to finish his meal with an apple (some practitioners advise celery), and that it is bad to eat between meals, or to go to bed with a sweet or a biscuit.

Most parents these days are only too anxious for their children to have good teeth, but few realise the part played by the deciduous dentition. Many of them consider the filling of deciduous teeth to be both unnecessary and expensive, their usual argument being that " they will fall out soon in any case." This idea is like that of the schoolboy who thinks it is not necessary to wash his face because it will get dirty again, and will certainly not appeal to such an enlightened audience as yourselves, gentlemen. It is the duty of dental surgeons to point out to parents that neglect of the child's teeth is the cause of a very large part of adult dental troubles, and that there is a very intimate relation between the condition of the teeth and the general health.

Those parents who cannot understand the importance of filling deciduous teeth, should be told that the dental surgeon's object is to preserve each temporary tooth until it is replaced by its successor, or a favourable moment has been reached for its removal, and to keep the whole dentition in a healthy functional state. They should be given to understand that the premature loss of the temporary teeth is a frequent cause of the misplacement of the permanent teeth. Fillings are essential to prevent their loss.

According to A. C. Lockett, the loss of one or more deciduous teeth may lead to :—

1. Complete ruin of a perfect masticating surface.
2. Movement of molars and second molars.
3. Tilting of second molars.
4. Straightening of the curve of occlusion.
5. Spacing.
6. Elongation of unopposed teeth.
7. Overwork of the anterior teeth.

With regard to the frequency of visits, Sir Norman Bennett suggests that a pre-school child should be examined every two months, and a child of school age at every holiday.

Should the child require orthodontic treatment, I consider that the parent and the child, if old enough and sufficiently intelligent, should be given a full explanation of the condition, and of the treatment necessary. They should be told that orthodontic treatment is for the prevention and correction of disharmonies of the dental arch and the improvement of the occlusion, with benefits to one or more of the following :—

1. The facial appearance.
2. Breathing and lip function.
3. Mastication.
4. Health of the dental tissues.
5. Speech.

It should further be explained that the improvement of all, or any, of the above may be expected to lead to a general bodily improvement.

The best method of demonstrating the treatment is by means of plaster models illustrating a similar condition to that found in the mouth. I would stress the importance of making record models of each case, both for this reason and for the observation of progress made. Having shown the parent and child what can be done, they should then be warned that the final result depends mostly on their co-operation.

Parents should also be advised as to bad habits, and their relation to facial deformities and malocclusions, and they should be warned that if these habits are not corrected they may necessitate expensive orthodontic treatment later on. Such habits as sucking the thumb, finger, lip, tongue, toe, blanket or dummy, and their effect on the bite should be mentioned; also the habit of mouth-breathing and its resultant high-pointed narrow arch, with liability to gingivitis; and posture habits, such as sleeping with the face on folded hands which causes cross-bite. The results of all these are easily shown by means of the aforementioned models.

The importance of the child's first visit cannot be over-stressed, as it is then that he forms his first impression of the surgery, the dental surgeon, and the treatment he is likely to receive at his hands.

There are roughly four types of difficult children who come to the dental surgery, and they may be classed as follows :—

1. The child who has never visited a dental surgeon before, and is not as yet complaining of pain. To my mind these children represent the most important group, and it is vital that they

should receive the most careful and considerate treatment.

2. The child whose mouth has been woefully neglected and who possesses a lot of carious and painful teeth, the pain from which is associated with the dental surgeon. The best method of treating these cases is by the expression of sympathy. The child should be made to understand that you appreciate the pain he has undergone, and that you will do your best to alleviate it. At the same time if the parent is admonished in front of the child for such neglect it will go far to win the child's confidence.

3. The child who has had previous unsatisfactory handling by another dentist. This is one of the most difficult to deal with, and it is often necessary for two or three visits before any work can be done.

4. The spoilt and therefore unreasoning child. Firmness is the great thing in these circumstances.

At the first appointment the parent should be addressed on such subjects as I have indicated, and the child should be ignored to begin with, so as to give him time to familiarise himself with his surroundings and to observe you. The first remark addressed to the child should be appropriate to the age, sex, understanding and interest of the child. The use of the Christian name is of great importance when dealing with children, as they love distinction and want to be considered as individuals. The dental surgeon should never appear to be in a hurry, as any signs of undue haste will start a dreadful series of apprehensions in children. He should never do or say anything to suggest pain or fear, and if the parent does so she should be taken aside and remonstrated with. A great display of instruments is strongly to be deprecated. In child treatment it is essential to cultivate a good temper and a cheerful manner; a child remembers cruelty, unkindness and unpleasant things, because most of his experiences in the natural course of events are pleasant ones. The first impression one should give is that one is a friend as well as a dental surgeon. For this reason several practitioners see a child for the first time in another room, thus making his acquaintance before attempting any treatment. I have found that a good method of giving the child confidence is to get him to fetch his high stool and to place it on the chair himself. A few rides up and down in the chair will generally help to break the ice, although this should not be done with the very young, as it has been found by psychologists that the sudden removal of all support will provoke extreme fear. In talking to children such subjects as a baby brother or sister, dogs, cats, birds, parties, holidays, dolls, games, dresses and the wireless are found to interest them. Boys are particularly interested in bigness, growth, muscle and the ability to do things better than their playmates, while girls are pleased by comments on their appearance and neatness. Having got the child in a receptive and interested frame of mind, the mouth mirror should be introduced and a casual inspection made. In my opinion this is as far as the treatment should go in the first visit, unless, of course, there is acute pain.

In some cases naturally progress is better than in others, and it may be possible to give a little prophylactic treatment with a soft rubber cup and some pleasant dentifrice. The first visit should be made as short as possible, and the child should be dismissed cheerfully.

In subsequent visits, having secured confidence, the dental surgeon will be able to commence treatment under favourable conditions, taking care to avoid any unpleasant operations in the early stages. Extractions should, if possible, be reserved till last.

All patients endeavour to avoid pain, and children will instinctively seek maternal protection as a refuge from their apprehension of it. Hence it is usually advisable to remove the mother from the surgery during treatment. In the case of the unruly child, he will recognise in this move the authority of the dental surgeon over his mother, and will usually resign logically and more quietly to treatment. A young child is essentially a reflex organism, responding to immediate impressions, and co-ordinating them with similar previous ones. He is free and animal in physiology, and almost as simple in psychology. Thus when a child comes to the surgery for treatment, he comes rather as a highly sensitised machine, ready to respond to any unusual stimulus we may produce. Our treatment must therefore vary from that of adults who come to us full of preconceived ideas about dentistry, due to hearsay, imagination, or reading. When a child talks about "touching the nerve," it is nearly always a repetition of something a parent has said. Most children do not know what a nerve is, and should be asked what they think they mean, why they are afraid, and who told them about it. Reasoning with the child will make him realise that his fears were founded on something he did not understand. Fear is nearly always dispelled by explaining its cause. The child's fear of the dentist is just a series of vague apprehensions of pain. He does not know when or why. It is simply the fear of pain in general. I was waiting my turn in the hairdresser's the other day when a small boy was brought in. As soon as he saw the hairdresser's white coat and the general layout of the shop he

let out a tremendous yell, and refused to be pacified until it was pointed out by the mother that here was no cruel and vicious dentist. The child's fears were completely dispelled by the simple explanation that the barber was only going to trim his hair and was not going to hurt anybody.

A child's mind reasons directly in definite terms, free of the involved processes that disturb the adult. It reasons in negatives and positives, seldom in half doubts. He trusts you or he does not. He believes you are going to hurt or he does not. He likes you or he does not. He will obey you or not, and he will be brave or refuse treatment. Telling him that he is capable of being good and bearing pain will create in his mind the idea that these statements are true, and he will act accordingly. When talking to a child, especially when emotional disturbance is present, you are appealing not only to his intelligence, but your words are also acting as suggestions which will be subconsciously carried out. In employing suggestion, never use the negative form, " Don't." Rather than tell a child not to close his mouth, it is better to tell him to keep it wide open. Simple affirmatives and definite negatives are the essence of conversation with a child. Tell him the truth and gain his confidence. He should be warned if any part is to be painful, but told that every possible precaution will be taken against causing pain, and that should it occur, he must be brave. If it is obvious that no pain will be involved, tell the child, and he will believe you if he has confidence in you. In subsequent visits the patient should be reminded that your promise not to hurt him was carried out. Incidentally it is a very good thing to make a note of such things on the chart or record. Never deceive by saying it " won't hurt " if you know that it may. Children have long memories and do not easily forgive. If they are hurt, explain why, and express sympathy.

A child will often follow the dental surgeon's advice when he will not accept a mother's order. In these cases it has been the dentist's habit to give his educational advice in a co-operative manner: " We shall do this," etc.

Capt. H. Steadman considers that it is important to secure the child's interest and establish a condition of mutual sympathy and understanding. Up to seven years, his interest is mainly in himself, his clothes, his toys and his parents. We may most easily interest him by remembering his natural egotism. From seven to fourteen, boys and girls are most interested in group activities of their own sex; boys in scouting, team games, their prefects and other leaders; girls in guiding, and their own games. After this age their interests become more general and the opposite sex comes in for attention. Boys become absorbed in creative work, meccano, wireless and boats. They develop the travel urge, and are interested in long country walks, motor cycling and foreign countries. Girls become interested in dress and other pretty things, dancing, music and travel.

While such conversations may be useful in filling in time during operations, the child should also be interested in the work in hand. Instead of hiding instruments, show them and explain their uses, and at the same time explain the work to be carried out, the explanation being adapted to his understanding. The child will ask questions, and these should be answered truthfully, no detail really being wanted, but just a logical explanation. This all helps to arouse interest in the work, and prevents the birth of apprehensions.

I do not propose to go into the technique of cavity cutting, other than to mention such things as small sharp burrs, small stones and sharp instruments. It should be remembered that the pulp and the cornuæ are larger than in the adult tooth. Many children have a rooted objection to strong tasting drugs or filling materials. A slight amount of eugenol on the operator's fingers may cause intense pain, while a lot of trouble may be experienced on trying to insert a temporary filling of ZnO and oil of cloves. In attempting to find a substitute for the cloves I have come across many dental surgeons who are using a preparation known as Fletcher's Artificial Dentine. This can apparently be used as a temporary filling, is not expensive, and consists of Zinc Oxide and Gum Arabic. I am interested to know why it is not used at Guy's.

I consider it a very good thing to use a surface anæsthetic, prior to an injection of local anæsthetic, especially in children's work. The infiltration method is to be preferred to the regional method of local anæsthesia, as the child, in the case of a mandibular injection, tends to bite his lip to see whether it has recovered yet. This often leads to considerable bruising and swelling of the lip, and parental worrying. Having given the injection the dental surgeon should wait for at least four minutes by the clock before starting any operative procedure. The method of producing local anæsthesia by freezing the tissues with ethyl chloride is, to my mind, unsatisfactory. If you spray ethyl chloride on to the back of your hand until you have got what you would consider to be sufficient anæsthesia, you will find the process to be an acutely painful one.

In dealing with the psychology of orthodontic treatment, I feel that I cannot do better than quote from an article written by Sir Norman Bennett in the *Dental Record* of March, 1932:

"When an orthodontist is contemplating the treatment of a case, there are many factors that he has to take into consideration: his own attitude towards the child, the child's character, the character of the mother, her relations with the child and her estimate of the value and difficulties of orthodontics, the nature of the abnormality, its diagnosis and prognosis, the age of the patient, physical development of bone and muscle, the condition of the teeth and gums, nasal obstruction, and the school arrangements of the child and the probable attitude of the school authorities. . . . What I want to put before you is that, although correct diagnosis and schemes of treatment are of vital importance, in a large number of cases it is, or should be, the child who carries out the treatment, and success or failure depends more upon obtaining its co-operation than on any other factor. . . . I prefer to use an appliance which the child can adjust, and in making up my mind what sort of appliance I will use, I have this in mind as the chief determining factor."

It is not difficult to move teeth and there are many ways of moving them, but it is difficult to arrange and ensure that the force necessary for movement shall be applied to the correct degree at the right moments. To get this done by the child implies a great deal more than taking advantage of the amenability produced by paternal training. It means making friends with the child and inducing in the child's mind more than a mere willingness to carry out instructions, rather a desire to attain success, and a feeling of reluctance to return later and allow it to be discovered that little or nothing has been achieved.

Children have receptive minds—they are often quicker at understanding what is to be done than their parents. They are usually very adaptable, and will wear even uncomfortable appliances put in the mouth, but anything less than complete honesty and frankness in dealing with them is worse than useless. It is of no use to tell a child that an appliance put in for the first time is not uncomfortable, because the child and the orthodontist both know that this is untrue, and each knows that the other knows; but if you explain to the child that it will not hurt, or ought not to hurt, and that if it does he must come and tell you; but that it will be uncomfortable for three or four days, and that after that he will not mind it a bit, then his pride is called upon, he discovers that you are telling the truth, and you have gone a long way to ensure adequate co-operation. I dare say these ideas are all platitudes, but I think this psychological factor in orthodontic treatment is often neglected.

In conclusion, I would say that the expression, "Prevention is better than cure," is particularly applicable to the dental treatment of children; as the treatment of the young adult, middle-aged and old aged patient is that of neglect from childhood. It must be fairly obvious that the well-pleased child is one of our best economic advertisements.

The Residents' Play, 1938

DOCTORS should never have adoring wives. Possibly these may be harmless for bishops, croupiers, greyhound trainers, inspectors of taxes and many other professions, noble and otherwise. But for doctors, adoring wives are poison; even drug addiction is preferable. For we are pompous by profession—our work makes us so. Tradition suggests it, ignorance provokes it, and caution needs it; patients expect it, most demand it, and some pay for it. Thus to return at night to an adoring wife is fatal to the doctor's soul; the pompous miasma rises like wine to the head and the damage is irrevocable. Not that we would wish our colleagues to be saddled only with nagging scolds, fickle jilts and saucy queens. But if we must be continually and firmy debunked, what better agent than the wit of woman? Admirable, certainly; adorable, perhaps; but adoring—no. The operation is not of necessity painful; humour is a good anæsthetic to husbands who take it well, and co-operation ensures a good prognosis.

The Residents' Play is the Hospital's good wife; local absurdities, injustices, false prides and idiosyncrasies, and even the endearing faults are made apparent with very little malice and a great deal of laughter and, what's more—a happy time is had by all.

Once again the Residents cheerfully entered their annual labour of love and brought forth a play, conceived by Jacoby and Wass, and skilfully and dextorously produced by James Brown and Forbes. The result was a bigger success even than we expected, and, in addition, was heralded by the new music of Tom Hills.

Jacoby and Wass we know. They wrote a good play last year, but a better one this; they are clever, but they are kind; pointed, but polite, and none need fear their bite. Last year (with Tom Hills wasting his fragrance on some desert air) their play lacked new music. Fortunately he was found, and his finding made all the difference. His music has a wide range, but as high a level as his distinguished predecessors, and his

delightful tunes, fortunately recorded, both charmed the ears of the musical and tickled the feet of the tone deaf. Composers of the music for the plays are rarer birds than authors, but the team made up as it was this year, makes us not only grateful for pleasures received but of blessings to come.

The play opens in Merthyr Tydfil, where four well-equipped miners are discovered on their way to work. Piping their native wood notes wild, they lament the departure of Dr. Nanson, beloved physician and destroyer of sewers, to seek fame and fortune on the gilded paving-stones of Harley Street. To their simple and innocent minds it seems mysterious that Miss Christine Barlow, the school-mistress, should be accompanying him, but our rude suspicions are interrupted by the siren and the arrival of the hero and heroine on their way to the station. From his red tie we can see that here is a man of refinement and his baggy trousers declare his scientific mind. Her hair declares her pure and innocent mind, and we are convinced, from her first words, of the depths of her passionate nature. We soon learn that not only is he to take the membership and London by storm and she to enter Guy's as a wolf in lamb's clothing, but they really have a mysterious mission to perform before wedding bells crown their achievement. They take courage in song :—

LOVE FINDS A WAY

Wedding bells to crown our glory,
Twinkling stars to light our way,
It's the same old lovers' story,
On our wedding day.
Even though the day is distant,
Our reward we'll gain at length,
In our cause we are insistent,
Love will give us strength.

Darling I know that it's a blue day,
But even so, we'll win through some way,
We've far to go, but we will never part.
Yet if you love, don't fear the morrow,
We're hand in glove, there'll be no sorrow,
Love finds a way to heal the broken heart.
Down goes the sun, up comes the moon dear,
You are the one who brings my heart cheer,
With you I know that I can trust my life.
Our wedding day will soon be coming,
Happy and gay, our voices humming—
Then we shall know that we'll be made and wife.

Absence makes the heart grow fonder,
Days apart, dear, we must face,
But however far I wander,
You're in my embrace.
Of you I'll be always thinking,
In the sunshine and the shade,
Though the sun to rest is sinking,
Love will never fade.

They hurry off, narrowly missing a shower of bricks and typhoid bacilli as yet another blown-up sewer ushers in a fresh era of Preventive Medicine.

A month later, under the clock of the Royal College of Physicians, with its appropriate title *Respice Finem*, Hutch and Boulton are found as Membership Censors conducting a " viva." They deplore their lot at Guy's, where the new Superintendent, a Van Tromp of medicine, is sweeping the Hospital clean of traditional dalliance with the Bedaux System. Forgetting their troubles for a moment and remembering the examination, they delay the candidates a little longer by letting us know how they eventually fail them :—

IN HARVEY'S ROYAL COLLEGE

Hutch—
The censors of the College conduct the Membership,
It costs a lot to have a shot, and if they pass
they pay more brass.
But how we fail the others we'd like to tell to you,
We have no rules, like the football pools, for passing
the very few we do,
It's just by luck, that a name we pluck, the others
don't get through.

Boulton—
By this exalted method, that goes back years and years,
The College name has won a fame that none gainsay
in any way,

McFlair and Chassis

So if you have a leaning to take the Membership,
We have no rules, like the football pools, for passing
the very few we do,
It's just by luck, that a name we pluck, the others
don't get through.

Both—
In Harvey's Royal College yet further you may rise.
A Member may, if he will pay, and stand a drink
to those that think,
Become a noble Fellow of which they're very few,
We have no rules, like the football pools, for passing
the very few we do,
It's just by luck, that a name we pluck, the others
don't get through.

At last a candidate is admitted. Yes, our hero, Dr. Nanson. His soft collar, English accent and ignorance of the latest literature on the treatment of ovarian cysts in males make a bad start. He recovers quickly, for his profound knowledge of the ill-effects of air within and the good effects of air without soon impress Hutch and Boulton. His statement of the guiding principles of medicine—"Firstly paraffin for the colon, secondly kaolin for toxæmia, thirdly vaccines for focal sepsis, and finally deep X-rays for thyroids and oxygen for everything else"—so convince the censors of his worth that they not only admit him to the Membership of the College, but invite him to join the brotherhood of the Staff at Guy's. The local boy has made good. A stately Sister with attendant nurses, Christine among them, enter the Royal College, no doubt calling in at Trafalgar Square on their way from Lancaster Gate. They join in celebrating Nanson's triumph :—

MAY YOU BE WITH US LONG

Nanson—
Teaching is the mainstay,
Service is the soul ;
Nobody shall gainsay,
These will I uphold.
As a Guy's physician,
I will not disgrace,
Honour my position,
Alway keep my place.

Hutch and Boult—
Now that you have passed your examination,
Let there be exaltation,
This is the time for song ;
We have seen that you know the explanation
Of every complication,
Nothing you said was wrong.
You are the man we want at Guy's, we know you'll
play the game,
Straight as the crow that straightest flies, remember
our name never to shame, so,
Welcome, welcome, trust our co-operation,
This is our peroration—
May you be with us long.

The Nurses Gossip

Sister Magnus—
Nursing is my forte,
Succouring the sick ;
You may think I'm haughty,
Nurses think I'm slick.
As a Guy's physician,
On me you'll depend ;
Honour my position,
I will not unbend.

Sister soon finds that the pleasing exterior of the new physician conceals the rasping tongue and bristling antagonism of the reformer, and removes her charges from a possible ally. Christine remains, and the lovers sing first of the luxury of

love in a waltz tune, then breaking into a triumphant Handelian pæon of the future and success :—

CLOSE TO MY HEART

Christine—
Dear heart, you've won your way to fame,
Your virtues I extol,
In gilded letters write your name
On Guy's immortal scroll.
My love for you will never wane,
Whate'er your station be,
But your success our mutual gain—
So darling, trust in me.

In my arms close to my heart,
Then there's nothing that can come between us,
And we know that friend Cupid has smiled on us,
And no fate can break us apart.
In my arms right from the start,
Then my life seems to be just completed,
And our worries and troubles defeated,
In my arms close to my heart.

Nanson—
Though Fortune's light has shone on me,
My love eternal springs,
And so through life I'll always be,
Whatever fortune brings.
The day shall come when you and I
In nuptial bonds are tied,
Together then our paths will lie,
For ever side by side.

Relieved of this excess of spirit, the lovers discuss the future and their mysterious plan. This is missionary work; they hope to carry their torch of passion and freedom to the tyrannical gloom of the Nurses' Home, where "single" prospect pleases and only man is vile. Hutch and Boulton return with their colleagues, the precise Grant Chassis, the concise McFlair and the bluff Eric Pott. They also writhe under the exactness of the new regime. Nanson sees his opportunity. He promises to rid them of the Bedaux System if they will support him in founding a Nurses' Trade Union. Risking the danger of jumping out of the Superintendent's frying pan into the all-consuming fire of a militant Gynarchy, they agree. The pact is made—away with the Bedaux System and on with the Nurses' Trade Union.

The second act, a week later, finds a group of nurses, sylphlike and provoking as ever, but now Comrade Greyskirts with fist-clenched salutes, outside the Superintendent's Office. From their chatter we learn how quickly times have changed —threats of strikes have abolished the ignominy of destringing, and even Queen Nature must give way to Trade Union hours. The Staff, however, still suffer under the Bedaux System, here shown by a time-recording machine where they must clock in and out of the Hospital. But it has not upset the Silenic cheer of Pott; his advances to the girls with a naughty story are cut short by the cryptic, dyspeptic Chassis, who dismisses them curtly. Some respect for authority is still left, for they obey. With the arrival of the rest of the Staff surely the time has come for them to join with Nanson and storm the Superintendent in his lair? But no; McFlair has no suggestion; Boulton is interested in the new machine; Pott is

The Strike Song

facetious, and Chassis' patience is exhausted. Furthermore the old squabble breaks out: Although in the same boat, who is more important—the physician who steers or the surgeon who handles the oars?

THAT'S WHAT SURGERY CAN DO FOR YOU

We are four noble Alumni,
Wearing our old College ties;
We do our stuff, by force or bluff,
Honorary members of Guy's.

McFlair and Chassis—
Surgery alone can cure a patient's ills,
Cutting is the back bone and the source of healing.
Surgery has action, makes no use of pills,
We mend the bones and dull the feeling.
If you have arthritis or perhaps the gout,
Take it to a surgeon and there's no concealing,
He will quickly cure you, merely cut it out—
That's what surgery can do for you.

Hutch and Boulton—
Don't believe a word that surgeons ever say,
Money is the only thing that they've an eye to,
All they want to know is how much you can pay,
Cash that you have you can say good-bye to.
They'll remove your stomach, and your kidney stone,
Anything remaining to remove they'll try to.
If you should recover just a bag of bones—
That's what surgery can do for you.

McFlair and Chassis—
Pseudo-scientific tripe physicians talk,
They can't cure such simple things as meningitis,
Or a hemiplegia, or tabetic walk,
Nature even has to cure neuritis.
At a consultation we have heard it said
Nothing can be done for chronic hepatitis,
Only one thing's certain, soon you will be dead—
That's what medicine can do for you.

Hutch and Boulton—
Narrow-minded people, that's what surgeons are,
They forget that we can cure a Witt's anæmia,
Also diabetes and Kala Azar.
Prontosil cures the septicæmia.
We have drugs to make you wakeful or asleep,
And we have some serum for a dread toxæmia,
That is medicine's harvest we physicians reap—
That's what medicine can do for you.

Nanson is finding matters none too easy; he has provoked the Sisters' hostility and the Staff harry him about their trouble. Matters are not improved by a deputation of Sisters, now united as Blueskirts, who goose-step in, militantly singing their marching song:—

ONWARD FOR EVER

Onward for ever,
We'll be defeated never.
We are the Noble Blueskirts
On parade.

Marching battalions,
Down with the Grey rapscallions,
Noble yet Nobler Blueskirts
On parade.

Fearless as foemen,
We are no evil omen,
Only the Noble Blueskirts
On parade.

Grim is our bearing,
Blue is the dress we're wearing,
Down with the ones that will dare oppose us,
Down with the foe and we'll win the day.

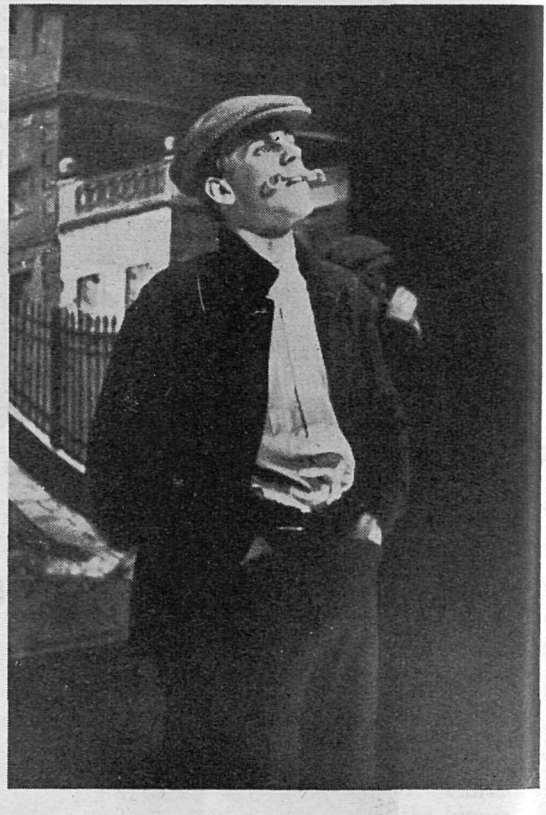
They state their case in rhyming couplets, but even the authoritative tone of—

I've been a Blue since nineteen-one,
My hair that year was in a bun;
Though now maybe it's turning white,
My tongue's not lost its acid bite.

fails to move the resolute Nanson. They will not be conciliated. Hutch's offer to detoxicate them is ignored, and obviously one day in Boulton's tents is better than a thousand. They refuse to recognise the Greyskirts, and Nanson, summoning his admiring forces, plays his trump card—a Strike:—

STRIKE, COMRADES, STRIKE

The time has come to end this foul position—
Strike, comrades, strike!
United stand to end this inquisition—
Strike, comrades, strike!



A Backbone of Bermondsey

The old regime at last has met its master,
The very blood of freedom makes our hearts beat faster,
So one and all unite to face the battle.
Strike ! Strike ! Strike !

The next morning dawns on Maze Pond with the Greyskirts' strike pickets guarding the College gate and two road-sweepers, backbones of Bermondsey and life-long and unto death faithful supporters of Guy's, cope with the horse traffic :—

AN ANCIENT AND NOBLE PROFESSION

An ancient and noble profession
Is keeping the roads fresh and clean,
Maybe for a Royal Procession,
But sometimes it's only the Dean.
A road-sweeper's life's not all honey,
And sometimes we feel quite upset.
To Guy's we must go when we're funny,
Where doctors of all sorts we've met.

Oh, I went to Mr. Morgan for my eyesight,
And he put a lot of glasses to my eye,
But there wasn't any need,
'Cos I hadn't learned to read,
And I couldn't tell an A from X or Y.
Then a plastic surgeon said that he was able,
Since they found they couldn't cure me with their pills,
To transform me into Garbo or Clark Gable,
And the man who thought he could, of course, was Nils.

So into the surgeon's hands again I landed,
And old Lambri tried to straighten out my back,
Then Grant Massie cut with zest,
And Boy Brock took half my chest,
And what D.-C. took was more than his fair whack.
I had stood as much as any man was able,
But investigations started in a flood,
I was nearly rolling on the P.M. table,
When old Dr. Ryffel came and took my blood.

Christine enters to inspect the pickets. Already the strike is making itself felt—the Superintendent

The rival parties meet in the Nurses' Home

Oh, I went to see Sir Arthur for my liver,
And he said 'twas due to drinking too much gin,
But he turned a little faint
When I answered, " No, it ain't,
I've been taking Dr. Mutch's kaolin."
Then I went to Dr. Forman for my scabies,
And he sent me off to Nerves, where I was told
That I'd got a touch of tabes or the rabies—
But in fact I'd merely got a common cold.

Oh, my missus went to Slecky with her goitre,
'Cos for goitres he's decidedly a flair,
But his brows began to knit,
And his handkerchief he bit,
And he quickly sent her off to see McNair.
She consulted Mac and Cook and Harold Chapple,
But they sent her off to Tubby Layton quick,
Saying would he kindly feel her Adam's apple,
And dispatch her then to see Professor Nick.

making beds, the Senior Physician carrying out the most menial investigations, and the residents, poor dears, having to fetch and carry like a junior pro., as well as serve dinners. The Blueskirts, now blacklegs, are stopped by the sentries, attempting to sneak in, and are roundly insulted by the impudent hussies. Antagonism rises almost to scratching point, but they join battle in song :—

WE FEAR YOUR DAY HAS PASSED

Blueskirts—
We dislike your figures and your faces,
Kindly go away.
Nurses used to know their humble places,
Skirts of grey.

Florence Nightingale is turning in her grave,
Thank goodness, she can't see the way that you behave!

Greyskirts—
We don't care whatever you are thinking,
We have lots to do.
Sisters soon will have to take to drinking,
Skirts of Blue.
Liberated now at last from your control,
Thank goodness we can find we've got you up a pole.

Blueskirts—
You hussies, we defy you,
That gate we want to storm.

Greyskirts—
To do it we defy you,
You haven't got the gorm.

Both Sides—
We'll fight you every inch of ground,
We'll have our way at last.

Blueskirts—
You'll never win, that we'll be bound.

Greyskirts—
We fear your day has passed.

Blueskirts—
We have sworn by Ashdown and the Matron
We shall win the day.
Righteousness we know will be our patron,
Skirts of Grey.
Noble Sisterhood has united for its cause;
Now, just before you cut your throats, why don't you pause?

Greyskirts—
We don't heed your insults or your babble,
You are in the stew.
We believe in acts and not in gabble,
Skirts of Blue.
Belligerent demeanour makes us smile;
Why don't you go and cool your heads or sleep a while.

You hussies, we defy you, etc.

The Staff ineffectually try intervention. Nanson is appealed to, but he can do little, for, although the first day of the strike, the funds are already bankrupt. Mediation is the only hope, and Dr. Pott is chosen to preside at a meeting to be held next day in the Nurses' Home. Mac is delighted, his face almost showing his emotion: "I've always wanted to go in there, but they never seem to need my services."

In the Home next day the nurses lounge in unaccustomed luxury and ease, gossiping of cabbages and kings, the Staff and the Superintendent.

A NURSE FOR CHATTER LIVES AND DIES

A nurse for chatter lives and dies,
And gossips night and day;
Her duty first to do she tries,
But gets so little pay.

So can you blame her if she talks
Of cabbages and kings,
We know that life has many walks,
So listen to these things.

Of Cony we have often said
He lives a life alone,
It seems that he will never wed,
It really makes us groan.
Now Maurice Campbell has a lot
Of children, and we're glad
That in between the heart-beats he
Can hear them call him "Dad."

Boy Brock on chests is quite a king,
On stomachs Grant excels;
On eyes you can't tell Law a thing,
Knott analyses wells.
Sir Arthur Hurst, we're glad to know,
Was in an Honours List;
Though his Combined Round may be slow,
Its absence would be missed.

Adolphus Abrahams rises up
And straightens out his knees,
Congratulates Sir Arthur Hurst,
And sas he quite agrees.
But still its good for foreign men
To hear what Britain knows;
It must be for such people then
Sir Arthur has these shows.

Frank Cook is quite a man apart,
His manner we admire;
His sayings often make us start,
He sets our hearts afire.
Now Joey Hughes prefers his men
From Jesus, John's or Caius;
Cantabrians are gentlemen
From noble families.

Now Dr. Douthwaite has such charms,
Is handsome and so tall,
We wish he'd hold us in his arms,
Or take us to a Ball.
Yet Dr. Cameron, though short
And iron-grey of hair,
To Guy's a reputation's brought
For pædiatric care.

To Dr. Symonds' mighty brain
Our caps we'd like to doff;
From him to differ all refrain—
He'd cut their nappers off.
Gillespie is the kind of one
Who says, "My dear, you're tired."
Psychology will be his fun
Until he has expired.

Now you have heard what we discuss
Between our hours of toil,
We never like to make a fuss,
Enjoyment it would spoil.
So in the Nurses' Home you'll find
We gossip by the mile;
That constitutes a nurse's mind
And makes her life worth while.

The protagonists, slightly nervous, gather for the meeting, including a rather thirsty McFlair, but where is Pott? Dillydallying, or at the

George with Professor Nick? No, a telegram arrives: the ethyl chloride spray is in demand, and will Mac deputise? He will, and the wordy battle starts. Marxian literature in the Home has had its effect, and the discussion rises in an inconsequential crescendo of fervour to a hot number, with Mac tactically poised on the table, a God of Swing, before the swaying arms of his crazed and admiring syncopants :—

GET A VICTORY WON NOW

Meetings like this are repulsive,
Meetings like this are a sin ;
Everyone gets so convulsive,
Nobody ever wants to give in.
Talking's a waste, we are certain,
Casting your pearls before swine ;
Might as well ring down the curtain—
God help the task that is mine !

Get a victory won now,
Get a place in the sun now ;
Get a place that is bright, by day or by night,
and gain us our right.

Blast the enemy sky-high,
For they never will get by ;
They have got to be fought, consider then
nought, a lesson they're taught.

For a truce and compact,
They must never make contact,
Just consider the true fact—
I've got to have poise and tact.

Get on with the meeting,
It's no use repeating,
We have got to get done, this isn't for fun,
It's dagger and gun.

Nothing can come of this meeting,
Progress is barred, I declare ;
Everyone knows time is fleeting,
Nobody seems to know what is fair
Talking's a waste, I am certain,
Women can never agree ;
Might as well ring down the curtain,
Truth in that dictum we see.

Get a victory won now, etc.

It is too much for him. He sinks exhausted into the chairman's seat while the acrimonious battle passes over his sleeping head. He is rudely awakened from his dreams of Hormones to find the meeting a fiasco—no doubt to be referred back or postponed indefinitely.

And now for the last scene. There is no time for the lovers to become estranged, so they once more pledge their first act troth by re-singing their first duet. The Sisters, their bubble reputation already pricked, seek conciliation with the nurses, who graciously clutch these erstwhile vipers to their generous and still symmetrical bosoms. With the tenth and last " Here comes——" Mac enters and, as the little child who has caused the lion to lie down with the lamb, receives the undeserved congratulations of the Staff. But what happened to the Bedaux System, Daddy? Well, at the last moment, among the empty bottles of the Super.'s house, Dr. Nanson finds an old charter of Thomas Guy abolishing it.

" Eureka ! " he cries, as he rushes—yes, fully clad—into the arms of Christine for the final round up. So the Staff went back to their old ways and everyone lived happily ever after.

FINALE

Now the show has come to a happy ending,
Homeward you'll soon be wending ;
We'll not detain you long.
We have shown you things that might need some
mending,
Given your hearts a rending,
Finally sing this song.
Neither offence nor hurt was meant, merely a little chaff ;
You know we have no mal-intent, so take it and laugh,
Nurses and Staff, now,
Farewell, farewell, thank you for all attending
And your attention lending—
You have been patient long.

Bliss, Perfect Bliss

The plot was a good one. Simple, the issues were cut and dried, and there were no mysterious disguises or dual personalities which so befog the average audience. The Fortress theme carried the first act, one of the best, especially the first scene, that we remember. This then gave way to the exciting battle between Grey and Blueskirts, with the Bedaux System in the background when wanted. The play was thus moving well until the last scene, when it became apparent that nothing was left save reconciliation. The authors had struck against the traditional residential plan of campaign and struck well, thus bringing fresh fish into their net, and also increasing the enjoyment of those without local knowledge. But perhaps the lovers' estrangement might have helped that last act; we diehards can just manage without the metaphysics of ghosts and djinns, but we like a thorny path for the lovers—it keeps our sentimental hearts throbbing with suspense right up to the final and jubilant curtain.

The dialogue moved wittily and logically from laugh to laugh, nothing missed fire, and—Bravo, Authors!—there were no soliloquies needed to explain the plot. Above all, the curtains were dramatic and effective. Lyrics and music were as complimentary as Gilbert and Sullivan. When the words carried weight, the tune did not confuse, and when the music was at its best, the lyrics did not obtrude.

The singing, especially of the lovers, was well well above the average, and the playing of Stone and Stares, who also made a record of the play, was delightful. The former we have enjoyed and admired before, but his base colleague was a new recruit.

Never before has the diction both in dialogue and in song been so clear; in fact, I am privileged to report that a deaf pathologist could hear every word from both sides of the stage. For this and for the fine finish we must thank the producers. James Brown, faithful servant behind scenes for some years, produced his first play. No one admiring the slickness and smoothness of the finished result could imagine what difficulties he had had to contend with. We hope his success produced at least one smile of satisfaction. He was assisted by John Forbes, and, knowing how skilful and helpful he was on the stage, we can appreciate what his co-operation meant. Of the gallant band of helpers behind, we dare name none, for all deserve praise and thanks. The *decor* of the Harkers and the dresses of Miss Shepherd were excellent.

And of the players themselves. These Residents were obviously above the average, but pulled together as a good team. Dunham, as the hero, would have won our admiration by his looks and golden voice, but he also kept our sympathy by his acting; we feel that Robert Taylor was lucky to escape from Denham with any reputation left. Willis's Christine had all the female virtues, with a pair of legs which would command a high price among Hollywood insurance brokers; these maidenly gifts he used to as good effect as his virile voice, which is high praise. Chief honours this year go to the combined efforts of Miners, Sisters and Nurses, while the character parts took second place. One particularly remembers Paul Davies's Miner, helped by local knowledge; Hugh Shire's McFlair, helped by an amazing likeness, and Harold Edwards's perfect jets of Chassis diction. Also Yerbury's cold, dignified Sister, supported by the blousiness and extravagance of Woolstone—rather like the splendid ship with white sails flying, leaning on the bosom of the anxious West. Smith was scientifically exact as Boulton; Malan's Pott was more than adequate; Gardiner's voice and physique were more fitted to the exuberance of the Barrow than the reticence of Hutch, a good effort. Milne upheld the grace of strings and McEvoy the dignity of Sisterhood, while Kilpatrick carried his divine figure as demurely as Shein and Tillman their menial duties. A good cast with a sense of the stage and the pulse of the audience, particularly apparent in Shire and Edwards, whose timing was perfect.

Next year, though we perhaps can't expect such good actors, we hope that the same team of Composer, Authors and Producers will again delight us, for, like the child at the end of his birthday, we're already looking forward to the next.

C.G.B.

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Correspondence

The Odd Article

To the Editor of the GAZETTE

SIR,—Your correspondent Ixworth has raised an extremely interesting subject for discussion. His experiences of precognition, usually through the medium of dreams, do not suggest that he is possessed of unusual occult powers, or that he is the confidant of spectral wraiths. It is inherent in everyone to learn from time to time of events which happen in that aspect of Time which is spoken of as the Future. I have no intention of raising Ixworth's ire by quoting Pavlov, which would in any case be irrelevant, but I do urge him to read "An Experiment with Time," by J. W. Dunne. Here is a man who is acknowledged to be possessed of a first-class mathematical mind who has had similar experiences to Ixworth, and has settled down to explain them on a theory of serialism in relation to the fourth and further dimensions. Quite apart from the chapters dealing with his theory, the book is worth reading for the instructions for carrying out experiments in relation to the analysis of dream contents. At first glance, his belief seems to be completely at variance with that of Freud, but I suspect that, in fact, the two can be reconciled up to a point.

The only objection to carrying out Dunne's experiments is that they involve writing down the dream content immediately on waking. The more the observer interests himself in the subject, the more certain he will be to wake up after every dream! This for a doctor is an alarming prospect, unless he is capable of falling asleep again instantly.

Yours, etc.,

A. H. DOUTHWAITE.

49, Harley Street,
W.1.

To the Editor of the GAZETTE

SIR,—I was most interested to read "Ixworth's" article in the *Gazette*, for I am now re-reading J. W. Dunne's "Experiment with Time," which deals with similar experiences and attempts an explanation.

As it is written, with certain exceptions which are marked, for the ordinary person which Ixworth claims to be, it would seem to be just what he wants.

Yours, etc.,

E. J. F. KING.

63, High Holborn,
W.C.1.

Reviews

A Textbook of the Practice of Medicine. By Various Authors. Edited by FREDERICK W. PRICE. Published by Oxford University Press. Pp. 1,883. *Price* 36*s*.

THIS well-known work of reference was introduced to the public in 1922, and has already achieved five editions with numerous impressions of each. Consequently it must have met a need long felt by students and practitioners for a full and detailed textbook of medicine. Dr. Price is to be congratulated in having brought together in one volume the contributions of so many well-known and respected authorities on their respective subjects. Guy's has contributed the names of Campbell, Hurst and Slesinger to a list of twenty-eight authors who form an excellent symposium of British medicine.

This is not a book which could be read from cover to cover by the student, if indeed any general textbook of medicine could, but a work of reference to be constantly consulted. Each part is a small book in itself, and included are twenty-one

sections, the last one being a full exposition of psychological medicine by Mapottier and Lewis. The number of illustrations has had to be curtailed to keep the work a reasonable size, and they consist principally of charts and tracings necessary to the understanding of the text. The index is adequate.

Diseases of the Skin. By ROBERT W. MACKENNA. Revised by R. M. B. MACKENNA. Published by Messrs. Baillière, Tindall & Cox. Fourth Edition. Pp. 542. *Price* —*s.*

IT has been said that of all the requirements demanded of a young practitioner on joining a firm a knowledge of diseases of the skin is most appreciated by his colleagues, and indeed it is not difficult to believe. Certainly no branch of medicine is so difficult to master, for one's grasp of the subject is almost directly proportional to the number of cases one has seen, and, given the best will in the world, one can never see more than a small proportion of the protean manifestations of skin disease before one begins to practise.

Failing opportunities to examine patients and so retain direct visual impressions of the different conditions, the next best thing is evidently to study good illustrations, and in any good textbook of skin disease these are at least as important as the reading matter. MacKenna's textbook, now in its fourth edition, was designed to meet the needs of the student and practitioner, and the author states that he has not tried to include full descriptions of all the rarer varieties of skin disease, but to concentrate more upon the difficulties of differential diagnosis in the more common conditions. The result is a book of manageable size printed in clear type and in a lucid and readable style. The illustrations are excellent, and we judge this to be a work which could be profitably included upon the shelves of the practitioner's library.

This edition has been revised and enlarged by the late Dr. MacKenna's son, who acknowledges his indebtedness to Dr. Barber in the Preface.

Sport

Rugby

Guy's v. Neath

(*At Honor Oak Park on Saturday, February 5th*)

FOR the first time for many years Neath visited Honor Oak Park, and, after a thrilling game in which both sides adopted open tactics, the visitors beat the Hospital by a placed goal, a dropped goal and a try (12 points), to a penalty goal and a try (6 points).

Although Guy's were compelled to make changes in their back division, they maintained the form shown at Gloucester, and with a little more luck and a better finish to their attacking movements, they might easily have won.

R. C. S. Dick was playing for Scotland and Baxter was unable to turn out on account of an injury, so Kynaston partnered Babrow in the centre and Morey and Birks filled the vacancies on the wings.

Babrow was outstanding, and played his best game since joining the Hospital; in Crawford he had an excellent partner, and both got through a tremendous amount of work.

The forwards had a rare tussle and, although Neath held an advantage in the early stages, Guy's improved considerably as the game progressed, and in the second half the visitors had as much as they could do to keep the Hospital at bay.

The game started at a terrific pace, and play swung from one end of the field to the other. On one occasion Guy's should have scored, when Babrow cut through to the full-back, but Morey was caught near the corner flag and bowled into touch.

From a scrummage near midfield, W. T. Davies found an opening in the centre, and after a run of forty yards sent Clement over with a fine try, which was not converted.

Guy's had a shock soon afterwards when a short punt ahead deceived Allen, but he made a quick recovery and saved on the line.

A grand three-quarter movement for Guy's followed, and Neath had the narrowest shave possible; Crawford started a bout of passing and paved the way for Babrow, who went through the defence, and from the stand it looked as if he had scored, but on grounding the ball he touched the corner flag and the referee ordered a drop-out.

Immediately after the kick-off, Neath were penalised for offside, and Kynaston kicked a goal, but the visitors retaliated and an elusive run by W. E. Jones on the blind side in which he beat two men, looked a certain score, but Clement missed his pass.

Another splendid effort between Crawford and Babrow should have brought better results, and although Babrow cut out a perfect opening for Kynaston, he was not quite fast enough to elude

the attentions of Walters, and he was brought down inches from the line.

The Neath forwards quickly transferred play to the other end of the field, and after W. E. Jones had attempted a drop at goal, the ball went loose, but quick following up caught Guy's napping, and Clement gathered and raced in for a try, which W. T. Davies converted.

Guy's started the second half in great style, and the forwards carried the ball to the visitors' goal-line immediately. Several scrummages followed, and eventually Guy's carried the ball over the line and Forbes touched down, but after the players had extricated themselves from the mêlée, the referee ordered a scrummage.

The Hospital were now seeing more of the ball, and after passing between Babrow, Crawford and Kynaston, Birks kicked high up to the full-back and Crawford caught him in possession.

The ball went loose on the goal-line, but Guy's just failed to take advantage of a splendid chance to score.

The game continued very fast and full of incident, with hardly a dull moment. Both sides were particularly strong in defence, and Neath must be given credit for their covering up and their opportunism.

In one of their attacks they worked the ball to the Hospital's 25, and after W. E. Jones had been tackled a few yards from the line, the ball was whipped back to the same player, who, finding himself unmarked, dropped a fine goal.

This reverse did not appear to worry Guy's, who penned Neath in their half and their efforts were rewarded eventually when Babrow brilliantly swerved past a bunch of players and scored a try, which Crawford just failed to convert. Guy's continued to press, but, although they made repeated attacks, they were unlucky in not adding to their score.

Team.—R. D. Allen; P. H. Birks, R. U. F. Kynaston, L. Babrow, L. G. Morey; J. P. Crawford, K. A. Stanyon-Jacques; J. R. D. Williams, E. S. Nicholson, H. H. Crabb, P. Fletcher, A. Forbes, R. O. Yerbury, C. Vidot, P. D'O. Kolesar.

Guy's v. Royal Air Force

(*At Honor Oak Park on Wednesday, February 9th*)

GUY'S accomplished one of their best performances of the season when they defeated the Royal Air Force, who were practically at full strength, by a placed goal and 2 tries (11 points) to 3 tries (9 points).

The return of C. S. Darke and the introduction of G. P. A. Sechiari put more life into the forwards, but a lot of the credit must go to P. Fletcher, who led the pack.

The forwards played a magnificent game and completely subdued the Royal Air Force pack both in the set scrums and the loose. Nicholson obtained possession of the ball time after time, and the backs worked so quickly that they made the visitors' outsides look slow in comparison.

Dick, fresh from his Scottish triumph, was in capital form and repeatedly found gaps in the opposing defence and started movements which kept Guy's on the offensive.

After five minutes' play Dick engineered the first try for Guy's. Securing the ball in mid-field, he deceived Walker and, following a magnificent run at top speed, reached the full-back before sending over Baxter for a try, to which Crawford added the goal points with a grand effort from near the touch-line and against the breeze.

Next a hard tackle of Rogers by Babrow sent the ball as well as the man flying, and Crawford and Morey carried on almost to the line. From a five-yards' scrum, the ball came out to Babrow, who had a wonderful opportunity to drop a goal, but unfortunately he sliced his kick.

Soon after this Forbes received a nasty head injury, but after a short rest pluckily resumed, and remained for the rest of the game.

For a few minutes the Air Force pressed heavily, and Walker, fielding a kick by Dick, raced upfield and passed to Thompson, who in turn handed the ball to Craven. The latter easily rounded Baxter and Allen, to score an easy try which was not converted.

The visitors took the lead when Craven, a brilliant wing, snapped up a dropped pass and ran in unopposed for another unconverted try.

Just before half-time, Guy's regained the lead when Stanyon-Jacques broke away from a scrum supported by Fletcher, and after a run of twenty yards, Fletcher finished off an excellent movement for a try, but Crawford failed with the kick.

Soon after the interval, Guy's increased their lead when Crawford made a splendid run and drew the defence, before passing to Babrow, who sent Dick in for a try, but Crawford stubbed his foot in taking the kick.

Holland, one of the back row forwards, tried his utmost to get through for the Air Force, and, although Walker and Rhys kept on trying, there were only one or two dangerous attacks.

The Hospital defence was excellent, but near the end Mosebey seized on a loose pass and the support of Walker and Wilson produced a loose scrummage, from which the passing move developed that enabled Craven to crash his way over in the corner.

It was a glorious game, and the Hospital deserve full credit for a fine victory. Their team-work was excellent and the improvement shown in recent matches has come just at the right time for the Inter-Hospitals contests.

Team.—R. D. Allen; A. B. Baxter, R. C. S. Dick, L. Babrow, L. G. Morey; J. P. Crawford, K. A. Stanyon-Jacques; G. P. A. Sechiari, E. S. Nicholson, H. H. Crabb, P. Fletcher, A. Forbes, R. O. Yerbury, C. Vidot, C. S. Darke.

Golf

FINAL OF THE HOSPITALS' CUP

WE met St. Thomas's in the Final of the Cup at West Hill Golf Club on Thursday, February 10th, and, sad to relate, were once again beaten by them, the final result being $7\frac{1}{2}$ to $4\frac{1}{2}$ points in their favour.

The foursomes were played in the morning, and in such appalling weather conditions that we only managed to win one of them, Reed and Drybrough-Smith, at the top, setting a singular example, which unfortunately remained singular.

In the afternoon, however, the sun shone in our hearts and over the course, and we set out in an attempt to win five out of the eight singles. This, as it turned out, we were unable to do, and so the Cup must stay with St. Thomas's for another year.

Results were as follows :—

FOURSOMES

Guy's		*St. Thomas's*	
B. C. M. Reed (2 up) & I. Drybrough-Smith	1	P. M. Kelly & W. B. Young	0
P. D. Spooner & R. D. Allen	0	B. Blair (4/2) & J. D. Younghusband	1
T. N. Praat & J. C. Ritchie	0	A. M. Barnett (1 up) and A. J. Nimmo	1
S. M. Whitteridge & P. Wilson	0	G. A. Wilson (5/4) & B. De Courcey	1
Total	1	Total	3

SINGLES

Reed	0	Kelly	1
Drybrough-Smith	$\frac{1}{2}$	Barnett	$\frac{1}{2}$
Ritchie	0	Blair (2 up)	1
Praat (3/1)	1	Younghusband	0
Allen	0	De Courcey (3/1)	1
Wilson (3/1)	1	Wilson	0
Whitteridge (1 up)	1	Nimmo	0
Spooner	0	Young (3/1)	1
Total	$3\frac{1}{2}$	Total	$4\frac{1}{2}$

Final Result.—St. Thomas's, $7\frac{1}{2}$; Guy's, $4\frac{1}{2}$.

Rugby Fives

ALTHOUGH few people are aware of its existence, there is a Fives Club in this Hospital which, considering that this is only the second season it has been recognised by the Clubs' Union, is quite a flourishing concern.

The Rugby Fives Club Supper will be held on Friday, March 4th, at 7 p.m., at the Cheshire Cheese, Little Essex Street. Our President, Dr. R. D. Gillespie, will be in the Chair.

GUY'S *v.* DULWICH COLLEGE

(Played on Saturday, February 12th)

On Saturday, February 12th, Guy's beat East Dulwich College by 40 points. O. H. E. Boyles won his singles, as did W. L. Neustatter, both playing a fine game. C. H. G. Chase lost after a Marathon game lasting over half an hour.

Result.—For, 162; against, 122.

Team.—W. L. Neustatter and C. H. G. Chase; O. H. E. Boyles (captain) and J. W. Stephens.

GUY'S *v.* OLD DUNSTANIANS

(Played on Wednesday, February 16th)

A very good match against the Old Dunstanians was won by the Hospital at Catford Bridge on February 16th. O. H. E. Boyles and C. H. G. Chase won all their matches. Southwell and Stephens, although they won one and lost one in the first two games, collapsed, and were down 19 points in the last two.

Team and Scores.—O. H. E. Boyles and C. H. G. Chase, 15—7, 15—4, 15—4, 15—6; Southwell and J. W. Stephens, 9—15, 15—12, 5—15, 6—15.

Result.—For, 95; against, 78.

Notice

GUY'S HOSPITAL MEDICAL SCHOOL
DIPLOMA IN ANÆSTHETICS

A Course of Instruction in preparation for the May Examination for the Diploma in Anæsthetics of the Conjoint Examining Board in England will commence on Monday, April 25th, provided that there is a minimum number of seven entrants. The Course will cover a period of three weeks, and will include lectures in Physiology, Anatomy, Pharmacology, Clinical Investigations and Anæsthetics.

The Course will be open to men and women graduates. The fee for the Course will be £15 15*s.* 0*d.*

Further information may be obtained from the Dean, Guy's Hospital Medical School, London Bridge, S.E.1.

Hospital Information, etc.

Notice

On Thursday, March 10th next, at 8 p.m., in the Physiology Theatre, Sister Christopher, with the assistance of Mr. Layton, is giving a Lecture Demonstration to Nurses on the preparation of a Dysphagia Diet, and the Matron (who will take the Chair) will be pleased for any House Officer or Student to attend.

Pass List

CONJOINT.

FINAL EXAMINATION.

January, 1938.

Medicine.

*W. E. W. Bridger	W. A. Jones
*R. V. Coxon	*A. S. Lee
*A. Crook	*O. Meerapfel
*J. J. Davis	*C. Phillips
*I. G. B. Drybrough-Smith	*A. T. M. Roberts
	*R. Rhydwen
*A. M. Edwards	*H. D. Smith
*P. G. Epps	*F. M. Smith
*W. Fine	W. P. B. Stonehouse
*E. S. Foote	*A. W. Taylor
*P. F. B. Gillett	*D. J. Wigginton
*S. Green	D. S. Wilson
*A. M. Hutton	

Surgery.

*C. L. Angell	W. S. Hacon
*V. H. Bowles	S. J. Hopkins
L. H. Boyd	J. P. J. O'Keefe
G. B. Collyer	A. H. Mayne
*R. V. Coxon	*O. Meerapfel
A. W. J. Craft	*R. Rhydwen
T. T. Davies	L. F. W. Salmon
*S. S. Davidson	H. Stott
R. L. Evans	C. J. Stewart
H. Foster	A. J. Walker
*S. Green	D. S. Wilson

Midwifery.

L. H. Boyd	D. R. Levinson
D. A. G. Brown	A. H. Mayne
*C. N. Brown	W. F. Mindham
J. F. Buckmaster	H. E. Moody
J. Burton	L. Nancekievill
G. B. Collyer	A. E. A. Shaw
R. F. E. Harrington	P. S. Silver
R. J. Healey	J. H. Smart
T. R. Jones	J. Watson
P. J. M. Kent	

Pathology.

M. R. Blair	L. Nancekievill
*P. F. B. Gillett	M. O. Richardson
R. F. E. Harrington	P. S. Silver
J. W. S. Harvey	R. A. R. Topping
D. R. Levinson	P. Wilson

*Have now completed the Examination.

ROYAL COLLEGE OF SURGEONS.
L.D.S.

January, 1938.

Dental Mechanics and Dental Metallurgy.

B. A. Bharucha	H. A. Hall
E. R. Burt	R. F. Hoar
B. D. Clark	P. E. Jeffery
D. A. Clough	J. A. Pearmund
H. V. Cockburn	J. O. Pierce
B. M. Cox	A. M. Pollard
D. M. Cushing	J. H. Ratcliffe
R. F. Cutmore	P. I. Rhodes
R. R. Darracott	R. G. M. Stobie
J. R. L. Goldman	R. B. D. Stocker
F. A. Gresham	

Anatomy and Physiology.

S. B. Bennett	J. A. Irwin
A. H. Drewitt	E. C. Lewis
A. C. G. Freer	N. A. Power
D. L. Gabb	F. F. Robson
F. H. Glass	B. P. Taylor
A. Halamandres	

Special Anatomy and Physiology.

B. D. Clark	F. T. J. Limpenny
J. D. Everall	W. A. T. Parsons
N. S. Harris	J. A. Pearmund
P. D'O. Kolesar	J. C. Ritchie

OLD REGULATIONS.

Approved in Metallurgy only.

R. J. H. Corfe.

Approved in Dental Anatomy and Physiology.

A. H. Reis.

UNIVERSITY OF CAMBRIDGE.

Medical Radiology and Electrology.

PART I.

February, 1938.

T. Fichardt T. H. Hills

Papers by Guy's Men

J. Rhys Herbert. The public dental service and the Law. *Public Health*, 1938, li, 131.

W. H. Bradbeer. A case of acute labyrinthitis. *Jour. Laryngol. and Otol.*, 1938, liii, 129.

J. V. Braithwaite. Treatment of infantile pyloric stenosis by antispasmodics. *Brit. Med. Jour.*, 1938, i, 334.

A. Ralph Thompson. Some practical notes on urological diagnosis and treatment. *The Urologic and Cutaneous Review*, 1938, Feb.

Changes of Address

Arthur H. Clogg, L.D.S., R.C.S., and Douglas S. Clogg, L.D.S., R.C.S., 14, Harley Street, W.1. *Langham* 1018.

Appointments

Selwyn Holms, H.D.D. (Edin.), L.D.S. (Eng.), Hon. Dental Surgeon, French Hospital, London, W.C.2.

Births

MACKENZIE.—On January 23rd, 1938, at Pietersburg, Northern Transvaal, to Wendy (née Fox), wife of L. G. MacKenzie, M.R.C.S., L.R.C.P.—a daughter

BARBER—On 15th February, 1938, at Nuffield House, to Sylvia (née Bush), the wife of Norman L. Barber, L.D.S. R.C.S. Eng.—a daughter.

TUDOR.—On 19th February, 1938, at Fernwood Nursing Home, Newcastle, to Edith Mary, wife of Dr. John Tudor, of Shield Row House, West Stanley, Co. Durham—a daughter.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — 12*th March* 1938 — *Number* 1295

PASSIM

" Damnosa quid non imminuit dies ?
Aetas parentum peior avis tulit
Nos nequiores, mox daturos
Progeniem vitiosiorem."

SO reflected one of our predecessors on the familial characteristics observable at a Guy's Biennial Dinner. And, if our memory serves us aright, he borrowed the reflection from one even greater and wiser than he. But it recurs with equal or greater force to us as we read the recent correspondence in the *British Medical Journal* and the *Sunday Times*. The correspondences do not, it is true, as befits those in a medical and those in a lay paper, pursue strictly parallel lines, but the one seems to us linked with the other. And, if anything, that in the *Sunday Times* seems the more interesting, for it deals not with the tedium of facts and assertions, of comparisons and legislations, but with a more romantic and speculative question, a question which cannot be answered with a definite yea or a certain nay, but the answer to which must be tempered on the one hand with the harshness of the memory that must be retained against the will, or, on the other hand, with the rosiness of retrospect. And further with a question which may result either in flattery or with a challenge hotly to be taken up. And what more enchanting prospect ?

Are we better than our forebears ? Mr. Borland (not, we understand, the Mr. Borland late of our Resident Staff), writing in the *Sunday Times*, has deplored our generation of medical students. Mr. Souttar, of the London Hospital, and Sir Walter Langdon Brown have hastened to defend us. Are we morally and mentally less than our predecessors of thirty years ago ? Come, can this be for us to answer ? Indeed it cannot, for our memories are not thus long. Food coupons and bread queues, the front at Brighton seen through a dim haze of perambulator canopies and the swishing of long silk skirts, the sounding of bombs, like huge weights dropped on corrugated iron, a confusion of khaki and the clash of cymbals —these are our recollections ; but the morals of medical students before the war, these were properly kept from us.

" You must realise that when I came to Guy's
Surgeons were respected ;
They were demi-gods to our admiring eyes,
Deference was expected.
On the other hand, a student's life was grand,
We were college cads ;
Plenty of time for women and wine,
We were lads."

So went the waltz, but idling through past numbers of the *Gazette* we find only more recent references to student conduct.

In 1920 one of our predecessors, with whose literary tone we do not necessarily associate ourselves, wrote of the occasion when Mr. Asquith (as he then was), having been returned to Parliament as the Member for Paisley, was left, together with his wife and Lady Bonham Carter, somewhat unexpectedly sitting beneath the open sky on the back seat of his erstwhile saloon car (owing to the removal of the back and roof by medical students) :—

> " It was with considerable annoyance and regret that one read of the disgraceful rag that marked the departure of Mr. Asquith for the House of Commons, and it is comforting to think that Guy's, at least (contrary to the statement made in one of the evening papers), took no part in the rag, so far as we know. At the time of the Pussyfoot affair—for which there was some justification—there was a general feeling abroad that the medical students were going perilously near the dividing line between a mere rag and what constitutes downright hooliganism. The free fight round the ex-Premier's car . . . was utterly unjustifiable ; not only does it show an absolute lack of appreciation of true greatness, but it demonstrates an apparent ignorance of the most elementary tenets of good form that is almost unbelievable. A rag so long as it is confined to rival hospitals, or is directed against some absurd and interfering crank, is well worthy of support ;

it does the raggers no harm, it amuses the general public, and provides copy for the newspapers. When, however, a body of men—whoever they may be—take it into their heads to annoy publicly so eminent and worthy a man as Mr. Asquith it is time for competent authorities to take the matter in hand and put a stop to the proceedings."

And in the next issue on the occasion of the team captained by Mr. Doherty winning the Inter-Hospitals' Rugby Cup :—

"In the second place, one would have thought that these heroes of the University College and Asquith rags would have made at least one attempt on the Guy's Milk Churn. Whether this seemly reticence (*sic*) was the outcome of a desire to spare the feelings of their lady friends from Gray's Inn Road or whether it was the result of an edict from the Bartholomew's authorities requesting their men not to appear in fancy dress and forbidding them to indulge in a rag, we do not know. . . ."

And later in the same year we read :—

". . . a notice appeared in the front lodge inviting all students to present themselves in the Colonade (*sic*) on a certain day and at a certain time for a purpose of which details could be obtained elsewhere. Later, through the medium of the evening press, it transpired that the purpose of this mysterious notice was to summon students to an organised 'rag' of a meeting of Miners' Delegates . . . It was stated in the daily press last winter by one of the officials of the 'rag' organisation that their purpose was to bring home to the inhabitants of London the fact that they live in a University town—in much the same way as the inhabitants of Oxford and Cambridge are not infrequently reminded of their proximity to a University. . . ."

Well, well. Mr. Asquith, we have reason to believe, did not greatly mind; at least we have it on the authority of a perpetrator of that piece of "absolute lack of appreciation of true greatness" that the ex-Premier wrote, in reply to a letter from the organisers, that his hat should be raffled for the benefit of the Middlesex Hospital, to which he himself contributed a guinea. But Pussyfoot Johnson, for the attack upon whom there "was some justification," lost an eye, and we doubt if he felt the same equanimity.

In truth, whether we are better than our predecessors, mentally or morally, we know not. But we are different. And you, Mr. Borland, can at least walk across London without being bonneted, like Viscount Knutsford on another occasion or Mr. Asquith when he set out for Parliament.

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IT is a simple movement of the eye to turn from the crossword puzzle to that comparatively frivolous part of the *Times* which deals with the world of sport. In a table of the results of the major Rugby Football Clubs of these islands we found matter (under the initial G) to cause in us a mild reactive depression. Whether the causes are organic, functional or psychological we know not, but it was a relief to turn from them and to realise that we have, in spite of them, again reached the "Final" of the Inter-Hospitals Cup in which we wish the XV every success. We are also delighted to learn that a Guy's man, a member of a different but no less distinguished club, has been awarded an international cap. To Mr. Leeming, for (readers, you have guessed it) it was he, we offer our most hearty congratulations. A past President of the Oxford University Hockey Club, he has brought inspiration to our side, and has helped it to the by no means ignoble record which is chronicled on another page. Mr. Leeming played in the international match on Saturday, March 5th, against Wales at Cardiff, and, despite the roughness of the ground due to the inclement weather, was his usual able self. He tells us that he was disappointed at the realisation that the large crowd which assembled had as its major intention a match between the Cardiff Second Fifteen and some other Rugby Club, which followed the international match; we hesitate to ascribe this reaction of the crowd to its remaining spellbound in its seats or to the natural lack of perspicacity of the Welsh nation.

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WE congratulate the Rugby XV on their deserved victory over St. Thomas's Hospital in the Semi-Final of the Inter-Hospitals Cup. May this encourage them to overwhelm their opponents in the Final and once again bring back the Rugger Cup to Guy's, its spiritual home.

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THE Hospital Cross-Country Team is warmly to be congratulated on its feat of having won the Inter-Hospitals Cross-Country Championship for the third year in succession. Mr. Etheridge has achieved a noteworthy feat in that he came in first for the fifth year in succession. He has thus equalled the record of the famous old Guy's man, Dr. H. A. Munro, and indeed, with other opportunities before him, we feel it is likely that he will defeat it. Guy's will, we hope, then hold both the first and second best performances in the annals of this event.

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IT seems but a fortnight ago, and in point of fact it was a fortnight ago, when we wrote of Edwin and Angelina out for a Sunday spin on the tandem. Our reminiscences of those great, gay days of old Victoria had been prompted by the gift to the Hospital of a fleet of bicycles to assist the Storks on their flight to obstetric cases in the Borough. And we conjured up for our readers a brief vision of the heyday of the Inter-Hospitals Bicycling Club. One of the parishioners of Ripley, Surrey, has been kind enough to write to us drawing attention to the fact that there is, in the

church at Ripley, a memorial window to Dr. Lionel Cortis, most famous of Guy's bicyclists. Whether in the stained glass there is that impression of dust, sweat and speed that we expect, we cannot say, for we have not as yet had time to investigate this piece of ecclesiastical artistry, but reference to the Bicentenary number of the *Gazette* of 1926 tells us of Dr. Cortis's triumphs of the track. Towards the end of his career in England, he became the only scratch bicyclist in London. On a 60-inch Invincible bicycle with half-inch solid tyres he won the 1-, 5-, 25- and 50-mile championships in 1879, and the 5-, 25- and 50-mile championships in 1880. Dr. Cortis was the first cyclist to cover twenty miles in an hour. This feat was accomplished at the Crystal Palace Track on July 31st, 1882 : and again, on August 2nd of the same year, at the Surbiton Recreation Grounds, when he covered twenty miles and three hundred and twenty-five yards in sixty minutes. This was done on a soft cinder running track, quite flat and with sharp corners.

Dr. Cortis practised at Coonamble in New South Wales, and died at an early age in Carcoa in 1886.

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THERE is a now rare pamphlet " List of Guy's Men in the Wills Library." The author, Mr. W. Wale, is now living at Cheltenham, and is anxious to recover a copy owing to its increasing rarity. Indeed, it appears possible that there is no longer a copy extant. We have been asked to give publicity to this desire of the author, and to ask our readers if any of them has at present in his or her possession such a volume, and in particular to inquire whether it is possible that anyone may have that edition which belonged to the late Miss Oxford, who was for long connected with the Hospital and who died in the year 1936. This issue has the name " C. H. Oxford " on the outside cover, and we are assured that its return either to Mr. Oxford, of Newbridge Hill, Bath, the brother of the late owner, or to Mr. W. Wale (through the Editor of the *Gazette*) would be greatly appreciated.

Doctors and the Public

A Clinical Lecture by Dr. A. H. Douthwaite, M.D., F.R.C.P.

GENTLEMEN,—Interest in the relationship of doctors and their patients has been heightened by the appearance of Cronin's " Citadel." The book deals with the struggles of an earnest young Scotsman who, within a few days of qualification, realises that much that he has been taught is complete nonsense, and that the medical world as a whole is rotten. He then proceeds to put it right, but in the process is lured from the straight and narrow path by the fleshpots of Mayfair. He then starts to make money by giving unnecessary injections to still more unnecessary females. This lucrative process is cut short by the incompetence of a fee-splitting surgeon who kills a male patient in attempting to deliver a blood cyst (? ovarian) ! In an outburst of righteousness he sells his practice at a good profit, and then tells most of the patients they are hypochondriacal and need no treatment. What his successor thought of the bargain is not described.

Ostensibly the book's aim is to indicate the advantages of group medicine, and the public are led to believe that the U.S.A. is the home of medical efficiency. The public being quite uninterested in technical improvements, discarded whatever good there was in the book and seized upon the murky incidents ; generalised therefrom, and concluded that most of us were rogues. Behind all this there lies an antipathy towards us which is difficult to explain, and is not displayed towards other professions. There was no general condemnation of the clergy, for instance, after the Rector of Stiffkey fell foul of the Consistory Court.

To return to the gospel of a group of specialists practising medicine.

Is this really the ideal to aim at? Are there not greater evils to be found in just those districts where the general practitioner has become extinct? I do not believe that he can ever be satisfactorily replaced by a combination of specialists. It is admittedly impossible for the practitioner to be expert in all subjects, but he does at least preserve the balanced outlook, the appreciation of the relative importance of evidence of disease which is apt to be lost in a group of consultants. If the general practitioner acts in conjunction with specialists at a joint clinic nothing could be better, but there is no fundamental difference between this arrangement and our present scheme, whereby the family doctor calls for a second opinion from the man he thinks most suitable.

The suggestion that three or four practitioners in a town should combine forces and each practise a specialty is good on paper, but won't work in practice. It is the public who won't stand for it. Those of us who have been in partnership know how difficult it is to induce patients to go to one or other partner even on one's day off. Not a bit of it. They will hold on until the next day rather than do so. Try to give the obstetric work all to one partner. What will happen? The mother

argues that the man who delivers her must know more about the baby than anyone else, and as she does not like to have two doctors calling at the same house, the whole family will transfer its allegiance to the obstetrician.

The private clinic run on American lines is, I have no doubt, a valuable institution, but this needs money. Is our public prepared to expose its income-tax returns and to be charged accordingly? The answer is a very decided "No." The English have a deep-rooted dislike for spending money in their own country on health. Foreign spas and clinics often run by the shadiest of characters flourish on them, but they are ever ready to plead poverty on return.

That in a minor, nevertheless appreciable, section of the public antagonism towards us exists must be admitted. Why should this be? Our detractors are seldom to be found in the middle classes, but abound in the leisured and wealthy circles. The attitude can be explained on an extraordinary gullibility combined with self-complacency unequalled in other social strata. Those who neither work nor spin often suffer from arrested mental development and think and behave as schoolchildren. Having the necessary means at their disposal they travel and come in contact with foreign healers, amongst whom is a large number of charlatans. The usual tactics of these gentry is to decry British medicine as hopelessly out of date, and then to indulge in an orgy of biochemical investigations wholly unnecessary, and often, I suspect, never actually performed. Entirely irrelevant tests, be it of hair, sweat, blood or fæces, all go to swell the dossier which the patient proudly presents to us on return as evidence of the superiority of Continental medicine. This queer belief of the English in anything foreign is by no means confined to the illiterate. "I wouldn't let a dog of mine be treated by an English doctor," was a remark made recently by an eminent K.C. as his contribution to the conversation at a cocktail party. When asked why, he quoted an instance of a woman pronounced incurable in this country who went to a German clinic, where she was told that she could be treated with a ray unknown to English scientists. They did not promise cure, because treatment had been delayed so long by the English doctors! The case was one of metastases following operation for carcinoma of the breast. If people who are trained to think logically can believe such rubbish, can we blame the masses who can scarcely think at all?

Two years ago I was called in consultation to an old lady who had had a very severe hæmatemesis. She had been going to Switzerland every year to see the only physician who could do her good. He had followed the usual practice of feigning horror at the mistakes made by the patient's doctor in England (this, by the way, appears to be a very paying tactic. We have a man in Harley Street with an immense practice built on such remarks as: "It's lucky you have come to me when you have. Another fortnight on your doctor's treatment would have imperilled your life") and supplied her with the usual mass of reports including tracings, alleged to have been made under X-rays, of a dropped stomach. By special treatment necessarily repeated yearly this physician was supposed to put the stomach in place again. Imagine our surprise when an X-ray taken revealed a diaphragmatic hernia with a third of the stomach in the thorax! Not, I admit, without glee we explained the position to the lady, but the last laugh was hers. She replied, "Well, that only shows what wonderful treatment Dr. X gave me to raise my stomach all that way"!

We've got our own slimy charlatans, of course, probably fewer than in many neighbouring countries because of greater control by the patient's general practitioner.

As to the general undercurrent of dissatisfaction with doctors; this depends on many factors. One of the most potent is the resentment of our knowledge of the frailty of patients who, to the rest of the world, are great men and women. How very ordinary, how even contemptible they may become under the influence of sickness or the fear of death. We probe of necessity the depths of their minds, the cesspools which vitiate their mental foundations; but for this knowledge we may never be forgiven.

Then again we are at a disadvantage because we so often give our services for nothing. I refer not only to the fact that most consultants devote at least a third of their working time to hospitals, but also to the many occasions when we all treat patients without hope of payment. Now the average man thinks there is a catch in this somewhere. He looks for an ulterior motive and, finding none, concludes (1) that this is a gesture to establish moral superiority, and (2) that we shall make up for it by making our other patients pay through the nose.

Talking about fees brings me on to another fruitful source of disagreement between doctor and public. Patients have been known to write that they have been undercharged. Such letters, however, are about as rare as the dodo, not because we seldom undercharge, quite the contrary, but rather because most recipients of such bills prefer to keep quiet. Complaints of over-charging, apart from those which are justified, usually come from the rich. There are a number of wealthy business men who live in perpetual fear of being

"done." They get no happiness from life and can be compared with the rich spinster who, fearing lest every man be after her money, refuses all offers and carries her withered virginity to the grave. The absence of a fixed scale of fees is no doubt responsible for a lot of disgruntlement. A man is charged twenty guineas for a cystoscopy by one and five by another, and wants to know why. Nine-tenths of the disagreement about fees could be saved by quoting the cost of treatment prior to undertaking it. I have yet to meet the patient who objects to knowing what it is going to cost. The fault lies with us. There are still doctors who regard the mention of fees as indelicate—until they have difficulty in collecting them. This attitude of refinement is nothing but a relic of Edwardian hypocrisy and vulgarity, and is long overdue for extinction.

Then we have the professional fee-dodgers. The person who leaves his car round the corner and wears the oldest clothes so as to support his plea of poverty. Yet more common are those who slip without much difficulty through the barrier of almoners and obtain free advice and treatment from hospitals. In fairness I must say that I don't think many of them realise that they are exploiting the voluntary service of the staff. They just like to save the money so that they can cruise to the West Indies.

Then there are our own faults to be considered. In the first place the tendency now largely extinct to adopt an air of superiority towards the rest of the community. This is particularly dangerous, now that medical failures are accepted as news by the Press. Our sanctuary is no longer inviolate, and the airs and graces which could cover a multitude of errors forty years ago now only serve to bring us to ridicule. We cannot shut our eyes to the fact that Death always defeats us in the long run, and presumably always will do so. The hoary music-hall jokes about doctors and undertakers will, therefore, continue to leaven the attitude of public to its doctors. People are usually ready to give praise for success, so we must not grumble if they enjoy our failures also. After all, medical failures do concern the layman, those of scientists do not. If an astronomer miscalculates the distance of earth from sun by a million or so miles, or the physicist gropes hesitantly amongst his electrons, the world is none the better or the worse, but if one of us misses tuberculosis a family may starve.

Compare, for instance, the lack of outcry following the exposure of the working conditions of miners in "The Stars Look Down" with the almost hysterical reaction to "The Citadel." The former may be as inaccurate as the latter for all I know, but it appeared to be a terrible indictment which left the public quite undisturbed.

Certain religious sects, of course, have a dig at us. The crank creeds, supported largely by frustrated women and ineffective males, teach that doctors are materialists and therefore fools. The disciples speak of herbs as if they were something quite removed from pharmacognosy, and they seize on the healing art as one of their main stanchions. The mystic leader imbues his followers with doctrines reconcilable only in the mind of a lunatic: diagnosis and treatment are simple to those who have seen the light. Cancer, of course, with its ghastly lure for women, features strongly in esoteric therapeutics. The diagnosis, according to anthroposophy, can be made by observing the pattern produced on filter paper by the suspect's serum! How simple a matter it is to cure then the disease!

Then we have the much abused medical etiquette. How many patients declare that they cannot keep pace with the complexities of medical etiquette! Yet it is nothing more than a code of good manners expressly designed to further their interests.

Consider the loose thinking of a person who accuses a consultant of racketeering because he refuses a consultation without the consent of the practitioner. Yet this I know has occurred. If ever a scheme was devised in the patient's interest it is surely that which demands that a consultant shall receive patients only with the general practitioner's express wish and sanction. It is a rule which we ought to do our utmost to defend. The patient gains by being sent to the right men for the complaint and by the knowledge that no treatment will be undertaken without the practitioner's consent. The consultant gains by receiving the technical details of the earlier stages of the disease, which can only be explained by the family doctor.

There are those who will not ask their doctor for the name of a consultant either because they fear to hurt his feelings—this attitude is, when you come to think of it, an insult to the general practitioner—or for fear he may send them to someone simply because he is an old friend, or again lest he should bias the consultant. Such reasoning is an indication of lack of faith, the causes of which I am trying to elucidate. A man about to buy a house consults a surveyor before doing so. To ask the advice of his butcher would be absurd. Yet an individual, possibly dangerously ill, will, on the other hand, confidently take the advice of his stockbroker as to the best "specialist" and see nothing incongruous in so doing.

Although in the past we have not been without blame in our attitude towards new systems of

therapeutics, it can be fairly said that since the war the medical profession has been excessively generous towards the inspired healer, medical or lay. Commissions have studied magic boxes; osteopaths and others have been invited to demonstrate their art and prove their claims, and, when successful, have been acclaimed. Cronin suggests that Spahlinger was unfairly treated, and a cure of tuberculosis smothered in its infancy by the jealousy of British doctors. I doubt if any man had fairer treatment at our hands. Patients were provided for him and he was given every chance to establish his claims, and failed. We are the victims of the common and vulgar error of generalising from the particular. A doctor fails; an osteopath succeeds; therefore all doctors are broken reeds and all osteopaths are heaven-sent healers, and so on.

It is the complete severance of the masses from logical thought which allows its belief in magic healing, night starvation, anti-vivisection, endocrine face creams, registration of osteopaths and Abram's box. What steps can be taken to rectify the present state of affairs? In the first place the public must be educated in matters of health sufficiently at any rate for them to understand the fundamentals of anatomy and physiology. This has been attempted spasmodically by the B.B.C., but for every talk on health there are a thousand advertisements urging such pernicious practices as daily purgation. Constant repetition is the first essential for effective mass-suggestion.

We should, I think, be more prepared to descend from our Olympian heights and take the public into our confidence. We can't blame patients for disregarding our conventions if they don't know of their existence. A prominent member of the staff of a daily paper assured me that the public as a whole had no idea that a general practitioner should be consulted before going to a consultant. He said it was our fault if patients fell into the hands of the Ivory's of the medical world. This statement from a man who certainly knew what he was talking about deserves attention. A campaign to instruct the public is required. It may be asked, "Who is going to make himself responsible for the dissemination of medical truths?" The British Medical Association is now attempting this in conjunction with the daily Press. Financing of the scheme would probably not be such a big problem as it would appear at first sight. Already the insurance companies of America are spending freely on advertisements warning the public against self-treatment, and I've no doubt it pays them to do so. Our own companies would save thousands of pounds by the same means, and incidentally establish a stronger feeling of trust between the public and its doctors.

Apart from enlightening the layman, a further line of conduct should be adopted by us, and that is to eradicate some of the evils which undoubtedly exist in our midst. It ought not to be possible for qualified doctors to give obviously biased evidence in the Law Courts with impunity, or to advise treatment which they know to be quite useless solely with the purpose of lining their own pockets. This exploitation of trust is an appalling thing, and goes quite unscathed whilst practitioners are penalised by the General Medical Council for offences which are ethically far less serious. That the evil is not widespread I admit, but it exists sufficiently to come to the notice of most of us within the first five years of practice. It is practised chiefly by the self-styled consultant who really runs a general practice by the steady acquisition of the patients of others. The victims are usually the smart Alecs of this world who short-circuit their general practitioner and find themselves in the parlour of a tarantula. It is a consolation to know that such people get the doctors they deserve.

Correspondence

Throat Surgeons and Smallpox

To the Editor of the GAZETTE

SIR,—I find that in the company of physicians and in places where they know things it is never imagined that a mere throat surgeon should show any interest in smallpox. And yet, leaving out the question that it is probably a nasal infection and that the virus gains access to the body through the nasal mucosa, there is a rhinological problem in the clinical aspect of the disease, as the following case shows.

My house surgeon, knowing that I was keen on acute sinusitis, rang me up on a certain Thursday evening to tell me that he had taken into Dorcas such a case in the form of a young girl of about sixteen with an intense headache and a temperature of 104° F. We discussed the treatment over the telephone, and arranged that I should see her on my arrival next morning. On the Friday she was quite well. I saw a smiling youngster sitting up in bed, devoid of pain and with a normal temperature. Her nose was of the character that, according to Lord Horder, is very

rarely reported on—in other words it was normal. I told my house surgeon he might send her out again, and when he asked me what I thought it was, replied: "My dear boy, by the time you are my age you will have seen lots of cases to which you cannot give a label," and the matter passed out of my mind until 12.30 p.m. on the following Sunday, when he rang me up about some other case that he had taken in and, having told me of it, said: "You remember that case you saw on Friday? I kept her in as we were not pressed for beds, and she came out in an extraordinary rash yesterday; I thought for a moment it was smallpox." "What?" said I. "Oh, it is all right, sir!" said he. "It isn't; I got Dr. X to see it (mentioning a very eminent member of the Junior Staff who had nothing whatever to do with any fever) and he says it is not smallpox, but——" and he rolled off a long dermatological name of three words and ending with "exuditorans." There followed a long dissertation over the 'phone in which the duties of the junior staff got mixed up with the responsibilities of any medical man into whose mind a suspicion of smallpox had entered, the outcome of which was that the house surgeon was to get hold of the person responsible for the diagnosis of smallpox in the area in which the Hospital founded at the sole cost of Thomas Guy was situated; that he was to ring me up again when he had got hold of him, and that on no account was any visitor to be admitted to the ward until he had done so. He rang me up again at 1.55 p.m. to say that the appropriate person was the M.O.H., who had been to see the case, seemed to have been perfectly delighted at being lugged out just as his Sunday joint was being placed upon the table, that he had agreed with Dr. X's diagnosis of ——exuditorans, and had given an excellent demonstration of why it was that condition and not smallpox.

"And what am I to do with the case now, sir?" I said that as we were not pressed for beds we would keep her in and get Dr. Barber to see her.

On Monday we had a message from Dr. Barber to know whether the matter was urgent, in which case he would come down specially, but if it were not he would see the patient on Tuesday. We replied that Tuesday would do very well. On Tuesday afternoon I was in No. 1 Theatre with Mr. Scott screwing out tonsils, when the house surgeon came to say that Dr. Barber had seen the case and he didn't care tuppence what the M.O.H. said, but he believed it was smallpox, and would have nothing to do with it. Not that Dr. Barber, a worthy gentleman, said such a thing; that was how his account got into my mind.

"What can I do now?" said the house surgeon, and I replied that he must get hold of the other expert again.

In the meantime Mr. Scott and I and his anæsthetic clerks and my dressers and all the theatre nurses and everyone we met went down to see the case and look at the rash; and we all agreed that Dr. Barber was right and that it must be smallpox, which was not very clever of us as by then it was a typical textbook case if there be such a thing.

When he came later the M.O.H. took the precaution of bringing with him the smallpox expert on duty for the week, who was the M.S. of one of the fever hospitals to which I am attached, and who to the day he retired never ceased to remind me of the case of smallpox that I kept in a surgical ward of a general hospital for nearly a week, and of the dirty trick I played upon the M.O.H. when he was first sent to see the case.

We had all the patients vaccinated. There were two secondary cases which occurred in two children whose parents lived so far away that some time had elapsed before consent for vaccination could be obtained.

I should like to draw attention to the following points:—

a. The fact that the early stages of a case of smallpox may be mistaken for a case of acute sinusitis.

b. The chain of responsibility, and the importance of members of the junior staff not allowing themselves to be called in to see cases of a firm to which they do not belong without the knowledge of the head of the firm. To see a patient as a matter of clinical interest with a house officer is a different thing; but this case shows how narrow is the dividing line between such an action and interfering where they have no responsibility.

c. How easy it is to make a wrong diagnosis as a result of suggestion. It is not hard to imagine the reception of the M.O.H. as he arrived in the Colonnade and in Dorcas, the apologies for pulling him away from his dinner, the statement that it was merely a case of ——exuditorans, that the house surgeon had happened to mention smallpox over the telephone, and that the—I wonder what they called me—had insisted upon his being called in; and with that he went towards the case with his mind prejudiced against smallpox and made a bad mistake.

d. The value of vaccination after exposure; none of the patients who were vaccinated at once caught the disease. The only two that did were the only two in whom the vaccination was delayed. Should we have vaccinated these two without awaiting consent? I asked the M.S. who was the expert who came to see the case. He said quite definitely, "No." Vaccination is not entirely devoid of risk, and the parents are the persons who should decide between this and the chance of catching smallpox.

I have long thought of publishing this case, but it has not seemed to lend itself to description in a journal, so I thought the fact that one of the contacts of the *Cathay* may be wandering into the Surgery shortly might make it of some interest if described in this less formal manner.

Yours, etc.,

T. B. LAYTON.

Guy's Hospital,
S.E.1.

The Newcomen Day Nursery

To the Editor of the GAZETTE

SIR,—Our Nursery, which cares for the babies of working mothers of Bermondsey and Southwark, is urgently in need of children's clothes and woollies, and, knowing the kind interest that your readers take in the Borough babies, I venture to beg you to allow me to make this known through the columns of the *Gazette*.

There must be many old Guy's men and nurses whose children have discarded or outgrown their garments, and I feel sure that if they did but know of our distress they would gladly send the clothes to the Nursery.

All sizes, especially for babies of two months to four years of age, would be welcomed and gratefully acknowledged.

Yours, etc.,

MARGARET FRIPP,
Chairman of House Committee.

The Newcomen Day Nursery,
66/67, Snowsfields, S.E.1.

Reviews

A Short Textbook of Midwifery. By G. F. GIBBERD, M.B., M.S., F.R.C.S., M.C.O.G. Published by Messrs. J. & A. Churchill, Ltd. Pp. 512. *Price* 15*s*.

MIDWIFERY is ever before the public eye. Babies are always news; whether good or bad depends largely upon individual tastes and a variety of circumstances, but there is nothing like a confinement to set the street talking, and the popular papers are seldom shy of prophesying possible happy events, or remarking slyly that Lady So-and-So has cancelled all her engagements.

In Holland not so long ago that cautious and businesslike nation of bicyclists was aroused to a feeling almost amounting to impatience by the non-arrival of the long-expected addition to its royal family. Pictures of the palace surrounded by a sea of bicycles, upon one of which sat (though, as if perhaps overcome by emotion, a trifle unsteadily) the reigning Queen of Holland, were on the front page of every newspaper, and one could easily imagine the wave of excitement which must have spread through that anxious city as the accoucheurs pedalled to the Palace, as no doubt they did, mounted upon some gigantic tandem.

Happily, the tension was soon ended when it was announced that a daughter had been born to Princess Juliana and Prince Bernhard.

Expressions of rejoicing and relief were unbounded, for public interest in the spectacular side of midwifery is very great. So great indeed, that events such as this vie with political crises almost for pride of place in the newspapers, and, as someone remarked with a wicked pun, the news since Christmas has been all Eden and Holland.

However, it is by no means always the more pleasant side of obstetrics which is placed before the public, and, when bodies in trunks, sensational exhumations and all the more orthodox stimulants of morbid curiosity become momentarily less abundant, sensational editors find a ready standby in a brisk review of the problem of maternal mortality, appealing to the very heart of the motherhood of the nation, and often leaving the impression that the average woman in childbirth lies amid perils only to be exceeded by those of deep-sea divers and swimmers in shark-infested oceans.

All this may seem very trivial and far from the point, but there is no doubt that in recent years the public conscience has stirred uneasily over the problem of childbirth and some sort of campaign has been started in an attempt to ensure that reasonably expert assistance is available to every woman during pregnancy and parturition. To this end, the status of midwives has been raised. Many more ante-natal centres have been provided and a series of recommendations have been made

by a commission of inquiry, the aim of which seems to be to remove midwifery from the ordinary run of general practice and set it up as a specialised subject on much the same level as general surgery, but, from our point of view, much more important than all these have been the recent criticisms (emphasised *ad nauseam* in the pages of quasi-medical fiction) of the obstetric training provided for students before qualification.

It is perhaps true that a declining birth-rate and the absorption of a large amount of clinical material by non-teaching hospitals has, in late years, limited the experience available to students in this branch of medicine, but, at Guy's, at any rate, with a new and up-to-date midwifery block containing fifty beds, regular teaching rounds, and a district which, if not as large as it used to be, at least offers to the student the almost unique opportunity of dealing with cases by himself, it is felt that there can be little to be complained about, and if failure at examinations occurs, some small blame must be accredited to the students.

In the writer's opinion, Mr. Gibberd's lectures on Wednesday mornings were, by themselves, almost sufficient for the inevitable examination, and it is a particular delight (and also some reason for this lengthy preamble) to see that the substance of these lectures has been expanded into a textbook, and Mr. Gibberd is to be congratulated on producing a book which should prove of very great help both to students and practitioners, and which is certainly one of the most readable of textbooks which have ever appeared in the *Gazette* office.

It is of very little use to prospective purchasers of this book, or to those who wish to hold it in comparison with other obstetric textbooks, to pick out points here and there (though there are one or two special features which must be mentioned later), but of much greater importance from the outlook of students is to emphasise the fact that Mr. Gibberd has presented in five hundred pages a thorough and lucid account of normal and abnormal midwifery, assuming in his readers little more than an elementary knowledge of anatomy, physiology and biochemistry, from which little or nothing of the essentials is omitted and which, from cover to cover, is refreshingly free from those irritating grammatical errors and spelling mistakes which seem an inseparable part of many medical textbooks.

The illustrations are excellent and many of the photographs, one might suspect, are the work of the author's own camera, but, whether or not that is so, both these and the diagrams are very well produced and form admirable mental pictures for use as a background to the text, an asset which was not always available in previous obstetric textbooks, some of which would make the operations they described look simpler by equipping the surgeon with double-length fingers and occasionally (but unmistakably) two right hands, instead of the more usual variety of right and left.

So much for this book from the point of view of students, but to those who have come to look upon midwifery from a rather more practical standpoint it is just as easy to recommend. The chapters devoted to the subject of the so-called Toxæmias of Pregnancy offer as good a summary of present-day opinion as can be had anywhere, and the author's clear-cut views on treatment and, more important still, the indications for active treatment, will, it is felt, be of great help to the many who may be bewildered by the mass of literature which has grown up around this somewhat ill-defined group of diseases.

Of equal importance is the section dealing with infections in the puerperium, which is very well done, and which, while emphasising the valuable assistance of the sulphonamide drugs, may perhaps be a source of discouragement to those whose whole outlook upon infections, ante-partum or post-partum, is summed up in the word Prontosil.

Neither time nor space would allow mention of all the lessons that could be learned from what might be called "Gibberd's Practice of Midwifery" (for a book of this size has little room for references), but no review, however casual, would be complete without drawing attention to three special points of practical interest.

First of all, while discussing the treatment of unrotated occipito-posterior presentations, Mr. Gibberd describes a method of manual rotation, using half the hand (*i.e.*, the four fingers and not the thumb) within the vagina, which one has reason to believe is not so widely known as it might be. This method has the advantage of requiring the use of the right hand, no matter what position the occiput may be in, which allows for the immediate application of the left blade of the forceps and is a great help in those cases where the occiput tends rapidly to return to its original position.

Perhaps more important still, this particular method, since only the four fingers are introduced into the vagina instead of the whole hand, means that manual rotation can often be accomplished low down in the pelvis, and that the head is not pushed back above the pelvic brim, as sometimes happens with other methods.

Secondly, and far more spectacular, are Mr. Gibberd's descriptions of mechanical devices to be used as aids in the treatment of respiratory failure in the new-born.

Briefly, the apparatus consists of an inclined plane set at an angle and which is made of canvas stretched over a metal frame, and upon which the infant is laid, head downwards, as soon as the cord has been cut. A rubber strap is provided so that the infant can be fixed firmly in this position, which, by means of the gentle slope downwards to the mouth, ensures adequate drainage from the air passages, and also avoids the inspiration of the contents of the pharynx, be they mucus or meconium, into the bronchi.

Thirdly, when it has been decided that something more than mere passive drainage is required to establish respiration, the lower end of the inclined plane, which is hinged, may be folded so that it forms a second support, and the whole appliance is converted into a small level table, admirably suited for active attempts to clear the air passages, or, for that matter, any operation upon a newly-born infant.

Assuming that a condition of apnœa exist, whether resulting from prolonged asphyxia, traumatic shock or sudden inspiration of liquor, or, as is usually the case, a combination of all three, Mr. Gibberd recommends the passing of a miniature intratracheal catheter introduced by means of a small direct vision pharyngoscope, and, when once this is in position just past the epiglottis, using it to blow regular blasts of a mixture of carbon dioxide and oxygen into the infant's air passages.

The supply of gas is regulated by a football bladder, which has an inlet and an outlet tube attached to it; the former is fed by a cylinder of gas and is fitted with a tap, while the latter is connected by means of rubber tubing to the catheter. A spring manometer is inserted between the bladder and the catheter, when the bladder is compressed by hand (having previously been filled from the cylinder), gas is forced down the catheter at a known pressure and, by means of a regular and rhythmic series of such compressions, efficient artificial respiration may be continued for an indefinite period, maintaining an adequate airway and providing a ready source of oxygen.

Indeed, it is probable that in certain cases, even more is done than to maintain a set of circumstances most favourable for spontaneous expansion of the lungs, in that by sudden and rapid increases in the pressure of gas supplied to the catheter (*i.e.*, by squeezing the bag harder), actual lung tissue, previously collapsed, may be inflated.

This seems to be an undoubted advance in the treatment of asphyxia of the newly born, and, as the apparatus is not particularly expensive, it should prove of great practical interest to all who are engaged in obstetric practice.

However, though one could go on discussing points of interest from Mr. Gibberd's book far beyond the limit of this review, it is hoped that enough has been said to leave no doubt that this is a book which should be read by all who are interested in midwifery, whether it be for the purpose of passing examinations or in the wider field of practical obstetrics.

In short, this is a book which can be recommended without the slightest hesitation, which is a remark we very rarely make.

Scalpel and Sword—The Reminiscences of a Surgeon. By Sir JAMES ELLIOTT, M.D. Published by Messrs. Angus & Robertson. Pp. 215. *Price* 7*s.* 6*d.*

THIS book is now almost a year old, and it is felt that copies even now may be percolating through to the shelves of the second-hand bookstalls, where its cover should remain a distinguishing feature.

However, the orange binding, first and last, remains in the mind as one of the few marks of distinction of this tedious work, setting out, as it does, to describe the experience of a well-known New Zealand surgeon. Specially commended by its publishers for accounts of well-known incidents in two wars, it left in my memory a feeling of strange disappointment, as if in a dream one had passed through the life of a great man at an even greater pace.

No one on reading the book can deny that the author must be a man of wide experience (though the more inquiring among us may be puzzled by the fact that an eminent surgeon has no other degree beside a Doctorate of Medicine after his name), and possessed of unusual powers of observation coupled with a most retentive memory —a combination which is sometimes referred to as a photographic mind, and is a quality much to be admired.

But, if Sir James Elliott's mind may be compared to a most observant camera, one might be tempted to pursue the analogy further, and to say that for its infinite variety and excitement the subject offered to him during his life could hardly be improved upon, but that the skill in operating this mental camera and the technique of developing its pictures fall far short of the capability of such an instrument.

Indeed, so much detail is crowded into every picture that the main points in the story are all but invisible and one cannot but be reminded of one's own early experiences with a camera, when, in the excitement of pressing the trigger, the plate remained unchanged, and, when developed,

showed a confusion of two images and did justice to neither.

It must not be thought from these remarks that the camera is wholly obscura, for the account of the management of a field hospital during the South African War and of the organisation of the *Mahone* as a hospital ship during the Great War are both instructive and amusing. They demonstrate most admirably (as does nearly every book which describes experiences in war time) the cramping effect of red tape and petty officialdom applied from a distant source upon any organisation, even one acting in such intensely localised conditions as a field hospital in a foreign country, and one cannot help but admire the author's fair-minded discription of his difficulties with authority, as well as his powers of original organisation.

However, all that is interesting in Sir James's two hundred pages of reminiscences is sandwiched between wordy descriptions of scenery, which, to those who are familiar with it, must seem something of a tragedy, while those who have never visited the places mentioned might obtain more excitement from a geographical dictionary.

Altogether this is a dreary catalogue of events which, if once disentangled, might prove of interest to many.

A. G. W. H.

Medical Bacteriology, Descriptive and Applied. By L. E. H. WHITBY, C.V.O., M.D., F.R.C.P., D.P.H. Published by Messrs. J. & A. Churchill, Ltd. Pp. 372. *Price* 11*s.* 6*d.*

HAVING read this book and having been struck by its superficiality in general, by its omissions and by its inaccuracies in certain particulars, one turned to the preface for an explanation or apologia. There one learnt that many students and practitioners of medicine failed to make full use of their bacteriological knowledge for certain reasons. This book, one learnt, was designed to assist them by including much descriptive bacteriology and by stressing the practical applications of the subject to diagnosis and therapy.

It is our considered opinion that should the students and practitioners rely on this book to contain information necessary to the application of bacteriology to medicine they will be dolefully ill-equipped.

Important practical points are often omitted, presumably for reasons of brevity, while other relatively unimportant matters are described at length.

The Mantoux test (printed in the index as "Mantoux *text*") is skimmed over in ten lines. No mention is made of the necessity for re-testing, at a sufficiently short interval after a primary negative reaction at 1/1,000 and 1/10,000 in order to avoid the possibility of desensitisation occurring as the result of the previous injection. No mention is made of the instability of these dilute tuberculin solutions, or of the danger of spurious positive reaction in other skin tests, as the result of using a syringe which has previously held strong tuberculin. One seeks in vain for an opinion as to whether there is any justification for the use of both Bovine and Human tuberculins, a question which one knows from experience is often asked by physicians, many of whom continue to use both types, not knowing that the difficulties of standardisation combined with the instability of the dilute solutions result in errors many times greater than any supposed specificity.

On the other hand, the subcutaneous method of Koch and the ophthalmic reaction of Calmette are alloted twenty lines in this section on "Applied Bacteriology." The warnings against the use of these methods, now practically obsolete in medicine, seem inadequate, and one is left in doubt as to which of the four tuberculin tests described by Dr. Whitby is considered by him to be the most useful practically.

Further examination of the pages dealing with tuberculosis reveals other statements which are either misleading, meaningless, or definitely wrong. Table V, on page 147, purports to set out the main differences between the human and bovine types. Does the sentence standing alone in the "Human" column, "Primary growth obtained from egg medium on potato medium," mean anything? Few bacteriologists would agree that guinea-pigs inoculated with an undefined dose of human tubercle bacilli usually live more than six months. The next remark means, if read literally, that these types of lesions which occur in man and are due to the human type, are found in man alone and comprise:—Pulmonary, 99 per cent.; abdominal, 50 per cent.; glandular, 30 per cent., and joint lesions, 80 per cent. We can only conclude that the writer intended to convey the information that 99 per cent. of human pulmonary tuberculosis was due to the human type of bacillus and so on, and that he thinks that the human bacillus occurs in man alone. In this belief he is, of course, wrong, and it appears that, in addition to its frequency in apes and monkeys, it is the commonest type of infection in the dog, and, according to various figures, occurs in approximately 2 per cent. of all dogs. Further, it has been found not infrequently in pigs, parrots and ungulates. This may appear to have little relation to human medicine, but such

a misstatement can have even less, and a family recently described to the reviewer might quite probably have been infected by a tuberculous collie dog.

The corresponding lines in the "Bovine" column read that in both man and animals pulmonary lesions occur in 1 per cent., abdominal, 50 per cent., and so on. Such loose and unintelligible writing is met in many places, and is likely to mislead. What does, for instance, the isolated remark on the opposite page mean, which runs, "Piscine tuberculosis in fish is characterised by granulomata and giant cells." Surely all tuberculosis other than the Yersin type of disease is so characterised, and in any case "Piscine" is a poor term for the "cold-blooded type" of bacillus, since turtles, frogs and snakes do not belong to the natural order of Pisces.

The belief that confusion between the Mycobacterium tuberculosis and Mycobacterium smegmatis is avoided by the use of the alcohol fastness is surely one belonging more to the naughty nineties than 1938, while the remark that the stain Carbol-Fuschin is a mordant is another example of space filled by inaccuracy. Fuchsin is a dye; phenol is a mordant.

In discussing the natural acquisition of immunity (page 17) it is stated that "Bacteria are ubiquitous, and it is impossible to avoid encountering them daily; provided an individual can overcome such small inoculations he will eventually acquire some degree of immunity to many diseases." Bacteria are ubiquitous, but not many of the pathogenic bacteria; few of us encounter typhoid, dysentery, anthrax or syphilis daily. "Immune substances are excreted in the milk," but chiefly that of pigs and ruminants, and the work of Mason, Dalling and Gordon has shown that trans-placental transmission is of far more importance in man, yet no mention is made of the placental route.

The section relating to the diagnosis of enteric fever is bad, and little help is given in regard to the interpretation of the agglutination reaction. Not one single figure is given for H. agglutinins, though we may perhaps think that the remark that "the reaction is not positive unless it occurs at a titre of at least 1 in 100," refers to an H. titre, since on the next page it is stated that "an O titre of 1 in 100 is accepted as diagnostic" unless the patient has been inoculated within the last few months.

It is implied that the Widal reaction is useless before the tenth day of the disease, since it "tends to become positive at that time," and the sound advice, particularly in the inoculated individual, to do the agglutination reactions of a person as soon as enteric is suspected is not given, and, though advice is given to repeat that test in the inoculated person in order to observe a rise in titre, no hint is given as to what might reasonably be regarded as a diagnostic rise. It is rightly stated that a rise is not diagnostic owing to the anamnestic reaction, but again no figure is given to give the practitioner an idea of the probable percentage rise.

There appears to be no discussion of the agglutination reaction in carriers, and the bald statement that "*immunity* to typhoid after vaccination lasts at least two years" surely requires qualification. Experience has taught that at the best only partial immunity is obtained in a proportion of people, and that an inoculated person should not lightheartedly expose himself to infection. Surely these points are of importance to the student of medicine.

To anyone who has read the book so far, absence of any mention of the Vi antigen causes no surprise.

There is no mention of a sheep serum control to the Casoni test, which is recommended by most knowledgable workers.

The "antistreptolysin test" does not appear to be mentioned, and there is no discussion on Rheumatic Fever, yet Rheumatoid Arthritis, "which is usually attributed to streptococci" (no reasons given) is alloted eighteen lines, and it is naively stated that "it is usual to prepare a vaccine from all streptococci isolated"—goodness knows from whence!

It must be realised that the writing of a short book requires far more care not only in the choice of subject matter, but in the actual writing. Exact and precise use of language is seldom attained in scientific writing, but it is essential that every sentence should convey some meaning, and loose expressions, perhaps excusable in a larger book where the writer's meaning may later be explained, is not to be tolerated. "The serum of all mammals contains a certain amount of complement" means, on translation, "contains a variable amount of complement."

Above all the writer should bear his object in mind, and when a diagnostic method is described at least sufficient accurate detail should be included to enable "students, house-officers and practitioners" "to make the best of their bacteriological knowledge."

This book may be found useful by a few who wish to obtain a slight knowledge of the subject sufficient perhaps for the Conjoint pathology examination. We prefer to consider it as a bacteriological primer in urgent need of careful editing.

An Introduction to Bacteriological Chemistry. By C. G. ANDERSON. Ph.D., D.Bact. Pp. 278. *Price* 10*s.* 6*d.*

A FIRST edition of a book which succeeds in filling to a considerable extent a hiatus in the available books on the subject. It is written largely for the bacteriologist with little knowledge of chemistry and will enable him to gain at least sufficient knowledge to take an intelligent interest in important bacteriological chemical researches of the rather technical type which are being done by trained chemists.

The chapter on the oxidation-reduction potential renders this rather complex subject far more simple than any other textbook which we have yet met. The section on Colloids and Adsorption summarises most of the important facts and gives the reader a clear idea of the general principles involved.

The value of the book would be greatly increased were the references fuller.

The appendix on the isolation and identification of metabolic products appears to be of little use, and centrifugalisation alone as a method of freeing a fluid from bacteria somewhat inadequate.

This book will be found useful chiefly by bacteriologists and chemists, but some of the chapters will be of interest to the reader of general medicine.

Handbook of Practical Bacteriology. By T. J. MACKIE, M.D., D.P.H., and J. E. MCCARTNEY, M.D., D.Sc. Published by Messrs. E. & S. Livingstone, Ltd. Pp. 586. *Price* 12*s.* 6*d.*

THIS is the fifth edition of this excellent book, which has been considerably revised and enlarged. The section on the practical differentiation of the organisms in the Salmonella group is very useful, and could be read with advantage by many practising bacteriologists, while the remarks on the interpretation of the enteric agglutination test are far above the standard of the usual textbook.

The modern work on the grouping of the β. hæmolytic streptococci is more than adequately described, and the methods of performance of the tests, collected as they are from the scattered literature and summarised together with the methods of immunisation of the rabbits, will prove useful.

The inclusion of a number of references is wise and could be extended with great advantage.

There are a few perhaps minor points with which we must disagree. The statement that the growth of the saprophytic acid-fast bacilli is rapid and abundant on ordinary media at room temperature is wrong. For instance the acid-fast bacilli, commonly found in taps and which have from time to time caused confusion in diagnosis, have proved difficult or impossible to cultivate by many workers.

A few minor points such as these, however, do little to detract from the general excellencè and usefulness of this book. We consider it an almost indispensible textbook for the laboratory worker, which will, however, serve the practitioner and student as an occasional reference book, and perhaps so long as the examining bodies continue in the folly of requiring a knowledge of bacteriological gardening as a qualification in general medicine, may be found useful by students taking practical courses.

Poulsson's Textbook of Pharmacology and Therapeutics. By STAHLEY ALSTEAD, M.D., M.R.C.P. Published by Messrs. Wm. Heinemann, Ltd. Second English Edition. *Price* 25*s.*

THIS English edition of a well-known textbook of Pharmacology should prove valuable to those who wish to possess a useful book of reference on this subject. It is based upon the British Pharmacopœia (1932) and its Addendum (1936), as well as the United States Pharmacopœia XI (1936). The pharmacological activities of the various therapeutic agents are described, and in each case followed by therapeutic indications. Details of the various official preparations are stated, and the doses given in both the English and metric systems.

Towards the newer drugs, however, the author shows a certain conservatism. Gold therapy is dealt with in small print and five lines in a book of this size would seem inadequate for the proper consideration of its use in rheumatoid arthritis. The toxic effect of gold on the kidneys is not mentioned. Magnesium trisilicate is not mentioned, and it is surprising to find no reference to the treatment of simple achlorhydric anæmia either in the article on Iron or in that on Hydrochloric Acid. No mention is made either of cyclopropane in the section devoted to anæsthetics. Apart from certain omissions of this kind, the description of the activities of the various drugs is exemplary.

It is unfortunate that the same high standard does not hold for Section VI, which is one of sixteen pages only and is devoted to " Anti-toxins and Bacterial Products." More space might have been given with advantage to these preparations in view of the enormous part they play in modern therapeutics.

On page 532 a scheme for the management of " contacts " with diphtheria is given which gives

the unfortunate impression that Schick-positive contacts with negative throat swabs should be treated by *active* immunisation. Desirable as subsequent immunisation of this kind may be, no indication is given that such " active immunity " will take some 1—2 months to develop, and that if any immediate immunisation of such cases is to be undertaken, passive immunity must be conferred by the injection of small doses of antitoxin.

Further, the section on Tuberculin requires much revision. The Mantoux test is not mentioned, whilst the Von Pirquet and conjunctival tests are described as having been introduced " of late years," although the author himself gives the date of introduction as 1907.

Apart, however, from these deficiencies, affecting chiefly the descriptions of the newer drugs and therapeutic agents, the book should be of considerable value.

Sport

Rugby

Guy's v. Aberavon

(At Aberavon on Saturday, February 12th)

AFTER one of the most exciting and attractive games seen at Aberavon this season, the home team scored a try in the last minute and won the return fixture by 4 tries (12 points) to a placed goal and a dropped goal (9 points).

From start to finish play was fast and thrilling, and at the end the crowd showed their appreciation by giving both teams a wonderful ovation.

Guy's had the advantage of the breeze in the first half, but Aberavon launched the first attack and Allen was forced to touch down in the first minute.

Following good defensive work by Dick and Crawford, Guy's rallied, but a promising movement was intercepted and Williams was nearly through.

After Aberavon had missed a penalty goal from an easy position, Babrow broke away and after a fine run of 30 yards he gave a scoring chance to Kynaston, who was playing on the wing, but R. Williams came across and forced him into touch only ten yards out.

The home side retaliated immediately, and after L. Radcliffe had made a fine solo effort, he was collared a yard from the line and from the scrum which followed G. Davis came round the blind side and managed to force his way over for an unconverted try.

An excellent passing movement at top speed between Dick, Babrow and Crawford carried play from one end of the field to the other, and Aberavon were fortunate to check it in their 25.

However, Guy's took the lead immediately when there was a quick break up of a scrum, and the ball was sent swiftly to Babrow, who surprised the field by dropping a magnificent goal.

Having taken the lead, Guy's played fine attractive football, and had the home backs guessing on several occasions. For several minutes Aberavon was kept on the defensive, and their full-back was hard pressed, but managed to clear.

Another grand movement between the Hospital three-quarters ended when Kynaston was tackled a few yards out.

The Hospital forwards were holding their own and were exceedingly good in the loose, but Aberavon put up a solid defence and their tackling was deadly.

Against the run of play Aberavon took the lead when Vickery picked up a loose ball, ran across field to Radcliffe, who raced over in the corner for a try, which was not converted.

After the interval Aberavon nearly increased their lead when S. Williams just failed to gather the ball, which rolled into touch near the line.

For a time the exchanges were even, but eventually W. R. Davies secured the ball in midfield, swerved his way through the Hospital defence, and scored a grand try near the corner flag.

Guy's fought back strongly, and after Stanyon-Jacques had made a fine run from midfield, he was thrown into touch a yard from the line.

Then followed one of the finest movements of the match, which ended in Dick scoring a wonderful try, which Kynaston converted to make the scores level.

Allen, who had changed places with Crawford, started a movement on the right. Man after man handled the ball, and the attack progressed in spite of some splendid tackling by the Aberavon threes.

Eventually Dick received a pass and, swerving inside, showed a clean pair of heels to his pursuers and touched down for a try under the posts.

On one occasion the Hospital forwards pushed their opponents over the line and touched down, but no score was allowed, and in the final minute Allen just failed to find touch with a long kick, and G. Davies dashed up, gathered and cross-kicked to S. Williams, who ran in for a try, which gave Aberavon their victory.

After such a splendid struggle, Guy's may consider themselves unfortunate to be beaten; the whole team played splendidly, and the forwards in particular were quite the equal of their opponents.

Team.—R. D. Allen; A. B. Baxter, R. C. S. Dick, L. Babrow, R. U. F. Kynaston; J. P. Crawford, K. A. Stanyon-Jacques; G. P. A. Sechiari, E. S. Nicholson, H. H. Crabb, J. R. D. Williams, P. Fletcher, C. Vidot, C. S. Darke, F. R. Turner.

Guy's v. King's College Hospital
2nd Round Inter-Hospital Cup

(*At Richmond on Thursday, February 17th*)

GUY'S made their first appearance in the inter-hospitals competition when they met King's in the second round, and after a hard struggle, there was no score, and the teams will meet again to decide who will meet St. Thomas's in the Semi-Final.

The conditions were so bad that the authorities decided to play the match on the pitch behind the grandstand. Snow fell continually throughout the first half, and the slippery state of the ground made it difficult for both teams.

Although Guy's had more than their share of the ball they were not allowed to make much progress, as King's covered so well and tackled so accurately that the most promising of their movements came to nothing.

Early in the game King's nearly took the lead when they were awarded a penalty in an easy position, but Stead just missed, the ball grazing the right post.

With the advantage of the breeze, King's gave Guy's several anxious moments in the first half, and their team work was excellent. However, Guy's did well to keep them out during this period and, following the change of ends, King's were subjected to the severest pressure by forward rushes and passing movements, but the defence and the conditions always won.

Both sets of forwards played magnificently, and King's in particular never let go and scattered with extraordinary effect, while their backs marked their opposite numbers so closely that the Guy's threes seldom got into their stride.

If the marking and tackling could not pull up an attack before it became really dangerous, someone—not infrequently a forward—was always at hand to cover a nearly beaten defence.

In the closing minutes Guy's kept their opponents well inside their territory and did everything but score. Fletcher, who led the pack, was untiring in his efforts, and Nicholson, who concentrated upon his hooking, secured the ball regularly in the set scrums, but the cold, wet ball and slippery going proved too much of a handicap for the backs.

Team.—J. P. Crawford; A. B. Baxter, R. C. S. Dick, L. Babrow, R. U. F. Kynaston; R. D. Allen, K. A. Stanyon-Jacques; G. P. A. Sechiari, E. S. Nicholson (captain), H. H. Crabb, A. Forbes, P. Fletcher, R. O. Yerbury, C. Vidot, C. S. Darke.

Guy's v. Old Millhillians

(*At Honor Oak Park on Saturday, February 19th*)

GUY'S had another exciting game, and after scoring in the first minute they were in arrears until just before the end, when a three-quarter movement which started in midfield resulted in Dick scoring a grand try, which Kynaston converted, to give Guy's the victory by a placed goal and a dropped goal (9 points) to a dropped goal and a penalty goal (8 points). Considering that they had such a hard match earlier in the week, Guy's did very well to succeed against the Old Boys, who have had a very successful season.

Straight from the kick-off the Hospital forwards rushed the ball to the Old Boys' 25, and S. D. Childs, one of the visitors' forwards, in attempting to clear, had his kick charged down and Allen dropped a neat goal to give Guy's the lead.

Following this reverse the Old Boys carried out a series of attacks, and Spong, as agile as ever, was always to the fore.

However, the Hospital defence was excellent, and the backs and forwards covered up splendidly.

Near the interval the Old Boys were awarded a penalty and G. L. Williams kicked a goal.

With only a point separating the teams, both sides attacked vigorously, and eventually the Old Boys took the lead when Grimsdell accepted a well-timed pass from Knight and managed to cross in the corner for a try, which O. L. Williams converted from near the touch-line.

Guy's had a trying time for several minutes, and there was every indication that the visitors would increase their lead when Stanyon-Jacques broke away from a loose scrum and, after a run of 30 yards, started a passing movement between Allen, Kynaston and Dick, who finished off the effort with a splendid try behind the posts. Kynaston added the goal points, and immediately afterwards the whistle sounded for no side.

Team.—J. P. Crawford; A. B. Baxter, R. C. S. Dick, R. U. F. Kynaston, L. G. Morey; R. D. Allen, K. A. Stanyon-Jacques; G. P. A. Sechiari, E. S. Nicholson, H. H. Crabb, P. Fletcher, C. Vidot, R. O. Yerbury, C. S. Darke, F. R. Turner.

Hockey

IT was with the greatest pleasure that we learned that, after the Final English Trials two weeks ago, J. A. L. Leeming had been awarded his International Cap against Wales. He has played regularly for some years in the Trial matches, and a cap was only a fitting reward for such a brilliant player. We hasten to congratulate him on this excellent achievement, and to wish him all luck in his future matches for England.

The Semi-Final Tie in the Inter-Hospitals Cup against St. Thomas's will be played on Monday, March 14th, at Honor Oak Park. It is hoped that at least all members of the Hockey Club will come along on that day, and give the team some encouragement from the touch-line.

The Annual General Meeting and Dinner of the Club will be held at Anderton's Hotel, Fleet Street, on Tuesday, March 15th, at 7 p.m. Our President will be in the Chair, and all our vice-presidents will, we hope, be present, so if you haven't signed your name on the list in the Colonnade, please do so at once and come along.

Results.—

v. Lensbury, February 12th (A.), won, 2—0.

v. Cranleigh Platypods, February 26th (A.), won, 6—0.

v. High Wycombe, March 2nd (A.), won, 2—1.

Record (to date).—Played, 29; won, 20; drawn, 4; lost, 5. Goals for, 115; goals against, 54.

Hospital Information, etc.

Pass List

SOCIETY OF APOTHECARIES OF LONDON.

FINAL EXAMINATION.

February, 1938.

Medicine.

*J. B. Good.

Forensic Medicine.

A. Backman *J. B. Good

* Has now completed the examination.

ROYAL COLLEGE OF SURGEONS.

L.D.S.

FINAL EXAMINATION.

February, 1938.

Surgery.

PART I.

J. A. Avasia
P. Borghys
W. H. Bransom
T. P. Bromley
E. P. Cutler
R. W. Harvey
L. James
N. H. McLellan
L. J. Moir
P. B. Myers
D. G. Sharp
M. Shaw
E. W. Sleeman
G. W. Vincent

Dental Surgery.

PART II.

E. Allen
J. A. Avasia
P. Borghys
T. P. Bromley
C. F. H. Bulow
P. A. Chandler
C. A. Chaundy
G. F. Daws
J. H. French
A. E. Parrott
R. C. Price
D. G. Sharp
M. Shaw
W. B. B. Southwell
G. Sperryn-Jones
P. D. Spooner
G. C. Sprigings
D. D. Stalford
J. B. Hardie
R. W. Harvey
J. R. Kempe-Roberts
D. F. Mace
N. H. McLellan
P. B. Myers
R. D. Ogston
E. D. Stanhope
G. P. L. Taylor
F. G. Triay
J. W. Truscott
B. F. Vellender
G. W. Vincent

Papers by Guy's Men

Hugh Barber. Trauma of the heart. *B.M.J.*, 1938, i, 433.

A. H. Douthwaite. Scapulo-humeral periarthritis. *Ibid.*, 441.

Changes of Address

Dr. P. M. F. Bishop, Warden's House, Guy's Hospital, S.E.1. (Residence and Consulting Room.) Hop 1177.

P. H. Williams, L.D.S., R.C.S., 9, Kendrick Road, Reading.

Appointments

F. J. Napier, Deputy Medical Superintendent, Leicestershire and Rutland Mental Hospital.

Births

LAKE —On February 23rd, 1938, at 3, North Parade, Lincoln, to Molly (née Roberts), wife of Dr. F. B. Lake—a second son.

NAPIER—On February 27th, 1938, at 27, Welbeck Street, W.1, Laura, wife of F. J. Napier, The Dool House, Littlemoor, Oxfordshire—a daughter.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — *26th March* 1938 — *Number* 1296

PASSIM

TURNING over the pages recently of one of those engaging little new magazines which are designed to provide the maximum of entertainment for the minimum of mental effort, our eye alighted upon an article by Mr. James Agate. Now all articles by Mr. Agate are as meat and drink to us, but this one took a form which is especially pleasing to our simple natures. On one side of the page were tabulated those things which the author liked most; on the other those which he hated most.

Among those items which incurred Mr. Agate's special disfavour were bridge clubs, caviare and B.B.C. humour, but the particular object of his disdain which attracted our attention was " leading articles which merely follow," and we made, there and then, a resolution that henceforth we would cease to be carried hither and thither by every breeze of public opinion, and that we should strike out a new and strong editorial policy in the very next issue of the *Gazette*, even though this new policy should, with its seven-fold blasts, cause the already tottering and undermined wall of Guy's to fall to the ground.

Trumpets in hand, therefore, we prepared to encompass the " City of Healing," when our attention was diverted by a voice blown from the South-East—so strident and stentorian in quality, so harsh and guttural in tone, that we stopped amazed in our paces and have since been unable to regain the poise and equilibrium which, we hope, is natural to us.

We were not alone in suffering this psychological shock, for this voice was penetrating and not one to be denied, and as everyone recovered the use of his stupefied faculties he rushed forward to tell us as directly as possible how the situation should be faced and in what manner a repetition could be avoided and the world made safe for Englishmen to live in.

We, too, having been diverted from our natural purposes would jump into the arena and, paying good heed to Mr. Agate's dictum that leading articles should lead, we propose to unravel the tangled threads of the international imbroglio and to announce our conclusions, however distasteful to our readers' ears.

The last time we deserted the home pitch we were received with such a chorus of disapproval that we have for a time tended our own garden scrupulously. Now we intend once again to atune our senses to the European concert and consider in some detail whether its cacophony could not, by the adoption of some key theme, be rendered more euphonious.

Four courses of action, fundamentally different in character, have been proposed to us by various individuals and groups during the last week to resolve the discord at present resounding through Europe. These may be briefly summarised as follows :—

(*a*) That England should ally herself with the democratic countries (*i.e.*, those who have) to maintain the *status quo* at the cost even of another war (Russia for this purpose is a " have " country, and therefore democratic).

(*b*) That England should pacify the " have-nots," *i.e.*, the dictatorship countries, with concessions, colonies and treaties, thereby satisfying their ambitions and removing the need for war.

(*c*) That we should retire into a splendid isolation and, having armed to the teeth, say to one and all, " Touch us if you dare ! "

(*d*) That we should join the Peace Pledge Union and refuse to fight—whatever the provocation.

These various proposals are made by persons and groups who up to the present have not been called upon to bear the responsibility of initiating the policies in question. Those policies are not, however, the less good for that reason, and each may be *a priori* a valid course of action.

Of the groups who have had the responsibility

of putting policies into action we may consider the Government and the official Opposition.

Our official Government programme may be labelled that of " The Balance of Power," and, reduced to its simplest terms, consists of adopting policies (*a*) and (*b*) alternately, but never letting anyone know which one is the policy of the moment. Having in 1914 discovered that this system was liable to land one in trouble, the Government should presumably have learnt wisdom, but a century's habits of thought are not easily broken, and the Conservative Party continues to be obsessed by the idea that what worked in the nineteenth century should work now.

His Majesty's Opposition, on the contrary, is dominated by its cordial dislike of the dictatorship Powers (excluding the U.S.S.R., of course) and, in spite of the fact that it nails its colours to the League of Nations' standard, it has become more militaristic than the most diehard of Tory imperialists, and would precipitate a world-war to make the smallest of countries safe for democracy.

Such then, briefly, are the various lines of action which are advocated by different groups of individuals in the country to-day. It remains to be considered which of these courses would be the wisest to adopt, and if there need be considered any further policy not as yet proposed by any group.

Before deciding this matter we would say that we find the problem of international relationships a relatively easy one in that the factors one has to take into account are for all intents and purposes fixed. On the one hand one has the material interests of the countries concerned, which are ascertainable by a study of economics; on the other are the psychologies of those countries. These are group psychologies and, unlike that of the individual, are predictable within small limits of error. Since the material interests are fixed factors at any one time, being determined by economic and geographical considerations, we are left with the group psychology as the variable factor, and we would advance the thesis that the variability is predetermined within narrow limits by its very nature. We advance five propositions which, in our belief, limit the variability and make it largely predictable :—

1. That no nation will be activated by a motive higher than one which will appeal to the great majority of its people.

2. That no country will act in any way incompatible with its own material interests.

3. That a treaty will be broken by any country as soon as it conflicts with the interests of that country.

4. That political relations between countries are not based on racial and other sympathies, but upon similarity or dissimilarity of interests.

5. That no agreement between nations can render inoperative any of these four clauses.

We believe these five propositions, although not absolutely true in the scientific sense, to be, generally speaking, axiomatic in character. Any proposal for solving the unrest in Europe to-day must, we think, accord with these tenets or it will be bound to fail in its objects. Since the Great War we have seen numerous schemes devised and put into operation for the termination of the use of war as an instrument of policy; these include the League of Nations, the Kellogg Pact, and the Locarno Pact. Each failed because it tried to over-rule natural laws and substitute one of artificial barriers; each succeeded only so long as it was in the interests of the signatories to uphold it.

What, then, can our statesmen do to alleviate the tension in Europe to-day? Firstly, they must determine the material interests of the nations involved, and this is easily done. Secondly, they must see how far these interests clash and to what an extent each of the " have " Powers will sacrifice to their less fortunate neighbours in order to purchase peace. Thirdly, if these differences of material interests cannot be resolved, they must ally themselves with those countries whose interests coincide with their own to defend their possessions against attack.

This we believe to represent the essence of all foreign policy, and it is as valid to-day as it was a thousand years ago. It will always continue to be valid until nations cease to exist, for the only possible variant in the meantime is the level of motive which may activate the majority of humanity. After 1918 it was hoped by many that human nature had materially changed for the better and that a new order of things would arise. In 1938 few cherish such a comfortable illusion. Many continue, however, to harbour ideas which, being illusory, will continue to lead us down blind alleys of foreign policy. Amongst these are (*a*) that democracy is in some curious spiritual way superior to all other forms of State organisation; (*b*) That we in England are habitually activated by motives higher than those of any of our neighbours; (*c*) That while other nations always consider their own interests exclusively, we are essentially altruistic.

Such views are still widely held, and they serve only to irritate more realistic countries and to blind ourselves to our true motives of action or inaction.

Our conclusions are therefore the following :— We believe that neither this country nor any of the " have " Powers will sacrifice enough of their possessions to satisfy the ambitions of the Dicta-

tors, because such a sacrifice would entail a deviation from the principle that no country will act in any way incompatible with its own material interests. We are forced then to the logical conclusion that our Government can best serve the interests of peace by announcing clearly that no territorial concessions will be made to the Dictators, and by taking whatever steps should be necessary to resist the pressure which might be put upon us by those Powers. These steps would include, no doubt, an alliance with those nations who desire to maintain the *status quo* at all costs, for only thus would one obtain reliable allies upon whom one could count—reliable not because there would be a similarity of ideology, but because an identity of interests would be the bond.

Every individual desires peace, every country desires peace, but peace, we believe, cannot be maintained any longer by disguising one's intentions in vague idealistic but meaningless pronouncements. The hell of 1914-1918 was paved with good intentions. We must henceforth abandon a high-flown phraseology and speak clearly in a language which will be understood by all and in a voice which will carry beyond the Alps and the Appenines.

▭

As we go to press we hear that the Inter-Hospital Rugby Football Cup has once more evaded the energetic clutches of the first fifteen. We are sorry to hear this sad news but hasten to congratulate St. Mary's on their success and commiserate with our own team.

Injuries to the Wrist

A Clinical Lecture delivered at Guy's Hospital by C. Lambrinudi, Esq., F.R.C.S., L.R.C.P.

GENTLEMEN,—The title of this lecture really amount to the injuries that can occur in the wrist by falling on the outstretched hand. They are :—

1. Colles' fracture.
2. Fracture of the radial styloid (chauffeur's fracture).
3. Fractured scaphoid.
4. Backward dislocation of the carpus.
5. Forward dislocation of the semilunar.
6. Fracture through the neck of the os magnum.

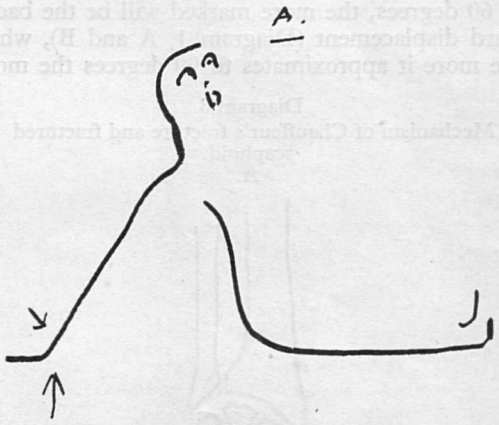
In 1, 2 and 3, the fall is the exciting cause, but the nature of the injury depends upon the position of the hand and arm at the time of the impact—whereas 4, 5 and 6 are all produced by forcible hyperextension of the hand. No doubt in the aged and the young—owing to the fragility of the lower end of the radius—Colles' fracture can occur by hyperextension alone ; I have never, for instance, seen a dislocated wrist or semilunar in them, but in the main from the point of view of mechanics the above general rule holds good.

MECHANISM

1. *Colles' fracture.*

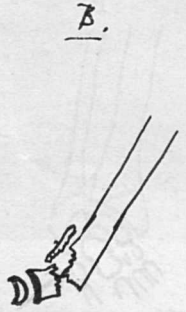
These are usually produced by falling to one side and landing on the hand, the arm forming an angle of between 60 and 90 degrees with the ground. In this position there is some bending strain at the lower end of the radius, but the chief force is an upward thrust. The characteristic dinner-fork deformity is thus produced, consisting of three easily recognised elements. Backward displacement of the lower end of the radius,

Diagram 1.



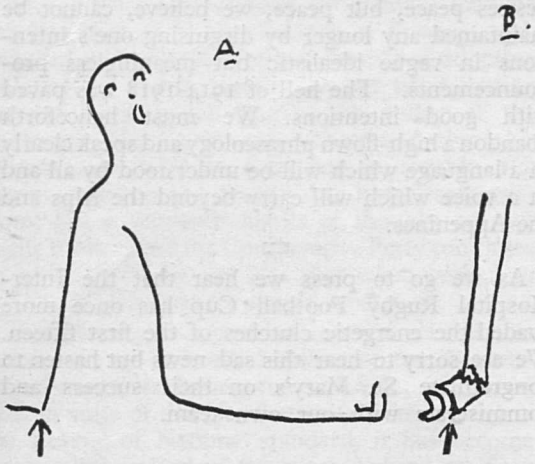
Upward thrust and bending strain.

backward rotation and radial deviation. This latter is accounted for by the fact that all the force falls upon the radius and practically none on the



Note.—Backward displacement ; backward rotation ; comminution ; no impaction.

Diagram 2



Mainly upward thrust.
Note.—Backward tilt and impaction. No backward displacement.
To illustrate mechanism of Colles' fracture.

ulna. The more the angle of impact approximates to 60 degrees, the more marked will be the backward displacement (Diagram 1, A and B), while the more it approximates to 90 degrees the more obvious will be the backward rotation due to the crushing effect of the upward thrust (Diagram 2, A and B). These are often impacted.

If when falling the arm is so outstretched that the angle of impact is less than 60 degrees, the force that comes into play is that of leverage action alone, and the injury sustained will be to the lever itself—that is the shaft of the bones; the narrower the angle the higher up the arm will be the fracture, ranging from a fracture of the lower half of the radius and ulna to the neck of the humerus.

2 & 3.—*Chauffeur's fracture and fractured scaphoid.*

Both these injuries are produced by a radial deviating force. Whether this be a fall on the hand, a blow, or a backfire, the factor which determines the type of fracture is the position of the hand at the time of the impact.

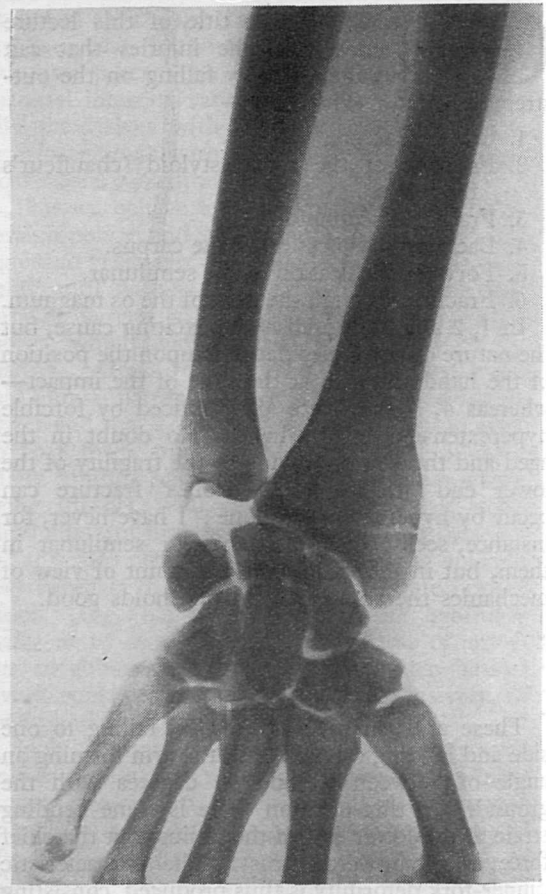
Diagram 3—A shows the relationship of the

Diagram 3.
Mechanism of Chauffeur's fracture and fractured scaphoid.
A.

Fractured scaphoid.
Hand straight.

B.

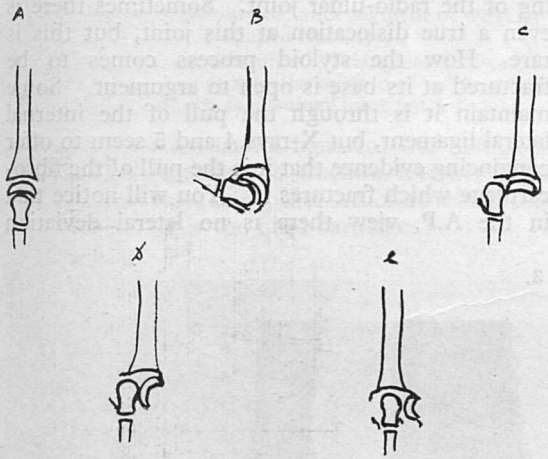
Chauffeur's fracture.
Hand radially deviated.



X-ray 1.
Chauffeur's fracture.

scaphoid to the radial styloid process when the hand is held straight. If the hand is held rigid in this position by muscular effort at the time when the blow falls, the styloid process impinges violently on the waist of the scaphoid and this bone cracks. On the other hand, Diagram 3—B illustrates the relation of the scaphoid bone to the radial styloid when the hand is voluntarily deviated outwards —a position commonly assumed when cranking a car, *i.e.*, lateral deviation with some dorsiflexion of the wrist. In this position the scaphoid is well sheltered under the radius so that a radial deviating force will be transmitted mainly through the scaphoid to the radial styloid, which fractures along the line indicated. (X-ray 1.)

Diagram 4.

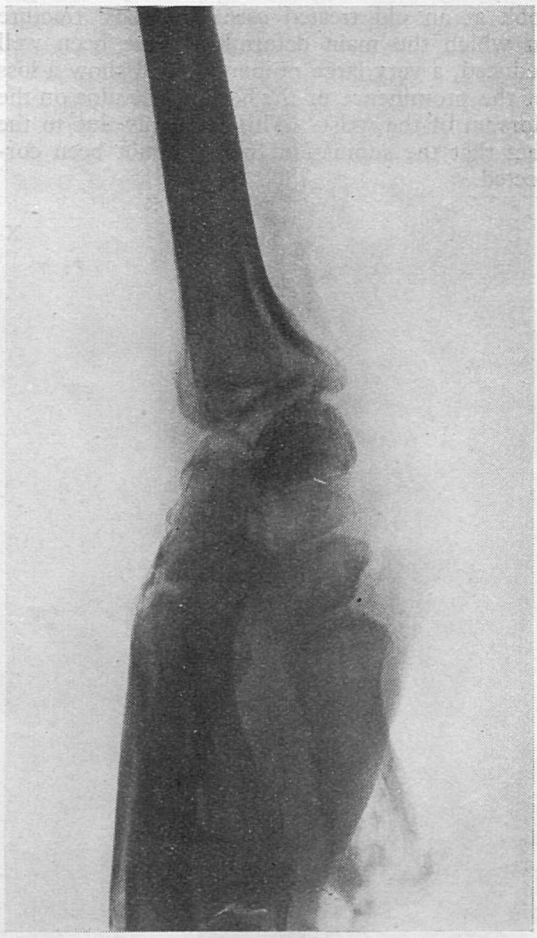


Mechanism of carpal injuries.

4, 5 & 6. *Dislocated semilunar, dislocated carpus, and fracture of the os magnum.*

Diagram 4—A shows the relative positions of the radius, semilunar and os magnum in lateral view with the hand in a straight line. Diagram 4—B is a lateral view with the hand in extreme dorsiflexion. Note that the semilunar rotates on the radius, and furthermore, a fact which is not generally appreciated, that there is a considerable amount of movement between the os magnum and semilunar—so much so that the posterior lip of the semilunar may impinge violently on to the neck of the os magnum and crack it. This, however, is very rare as an isolated injury, but is an occasional accompaniment of grosser ones. What usually happens is that when the hand is dorsiflexed beyond its limit the ligament between the semilunar and os magnum ruptures and the os magnum, carrying the whole hand with it, slips back and comes to rest posteriorly—the semilunar remaining in its normal position. It sometimes remains in there, but more often this posterior displacement of the carpus is only a momentary phase in the production of an anterior dislocation of the semilunar. The pull of the muscles tend to draw the hand forward into normal alignment, and in the process the os magnum impinges on the posterior surface of the semilunar and forces it out of position to the front of the joint. Thus you get the characteristic appearance of the os magnum articulating with the radius and the semilunar lying anteriorly, the concave surface pointing forwards (Diagram 4—C, D and E, and X-rays 2 and 3).

So much for the mode of production of these various wrist injuries—we will now consider some of them in greater detail.



X-ray 2.
Posterior dislocation of os magnum and hand. Semilunar in nearly normal position.

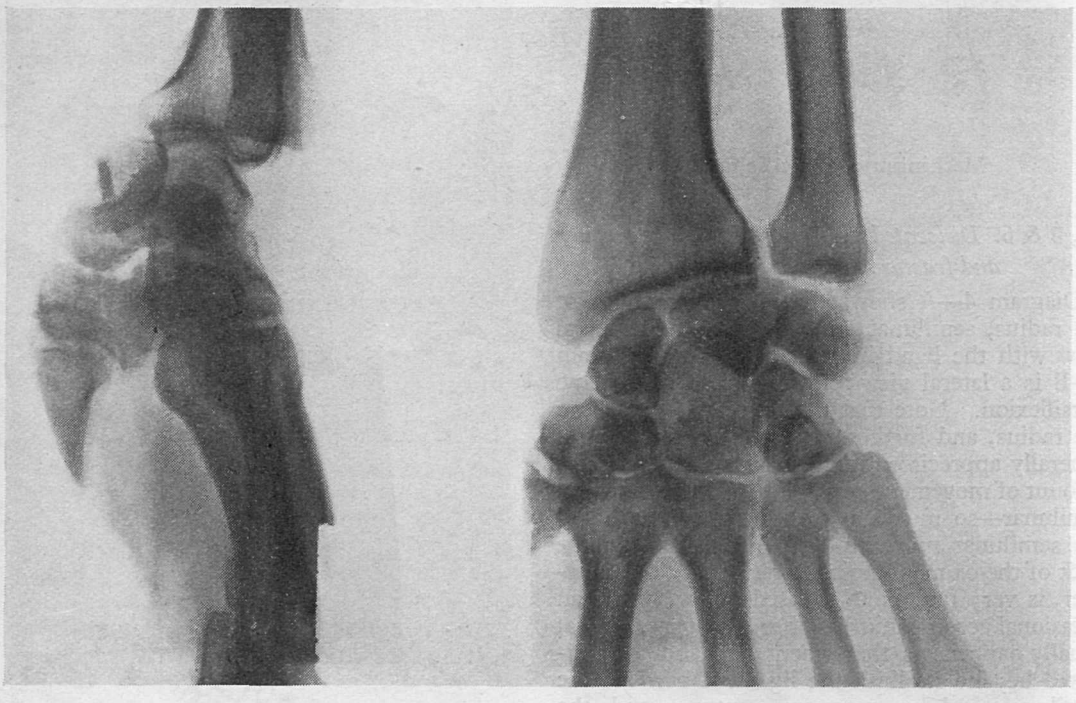
COLLES' FRACTURE

I have already referred to the three elements which combine to produce the characteristic deformity of this fracture—the posterior displacement, the rotation and the lateral deviation of the lower fragment—but there is a fourth one which is not given the prominence it deserves in textbooks, namely, a supination twist of the lower fragment. When the hand strikes the ground the forearm bones are fully pronated by muscular action. As soon as a fracture occurs, therefore, the pronator radii teres ceases to exert any control on this fragment, consequently the hand gets forced to a greater and lesser degree into supination. This occurs to some extent in all Colles' fractures, but the other three elements of the deformity so overshadow this one that it is liable to be overlooked. It is, however, a factor of importance, for if you look at an old treated case of Colles' fracture in which the main deformities have been well reduced, a very large proportion will show a loss of the prominence of the head of the ulna on the dorsum of the wrist. This is mainly due to the fact that the supination twist has not been corrected.

Another point to which insufficient attention is paid is the associated fracture of the ulna. The ulna styloid is fractured in almost 60 per cent. of cases—it may be torn off at its tip, at its base, or occasionally the whole head is avulsed. The fracture through the tip is an avulsion one by the pull at the internal lateral ligament, and is of little interest even though it tends not to unite, for it scarcely ever gives rise to trouble later. The fracture through the base is more important.

The triangular fibro-cartilage is attached at the base of the ulna styloid, and when this process is fractured it is highly probable that the cartilage also becomes detached with it, and in consequence the security of the radio-ulnar joint is impaired. In such cases, therefore, you are dealing with a dual lesion—a fracture of the radius and a slackening of the radio-ulnar joint. Sometimes there is even a true dislocation at this joint, but this is rare. How the styloid process comes to be fractured at its base is open to argument. Some maintain it is through the pull of the internal lateral ligament, but X-rays 4 and 5 seem to offer convincing evidence that it is the pull of the fibro-cartilage which fractures it. You will notice that in the A.P. view there is no lateral deviation

X-ray 3.



Lateral view only.
Anterior dislocation of the semilunar and os magnum articulating with the radius.
Note also crack in neck of os magnum.

whatsoever, but there is a fracture at the base of the ulna styloid. The lateral view on the other hand shows a concertina fracture of the radius on the dorsal aspect so characteristic in young people, with very little displacement. It is obvious that the fracture was produced by an extension thrust, and in that position and with that insignificant degree of displacement, it is unlikely that the internal lateral ligament was sufficiently stretched to produce a traction fracture of the ulna styloid—the only other structure which could be responsible is the fibro-cartilage.

Diagram 5.

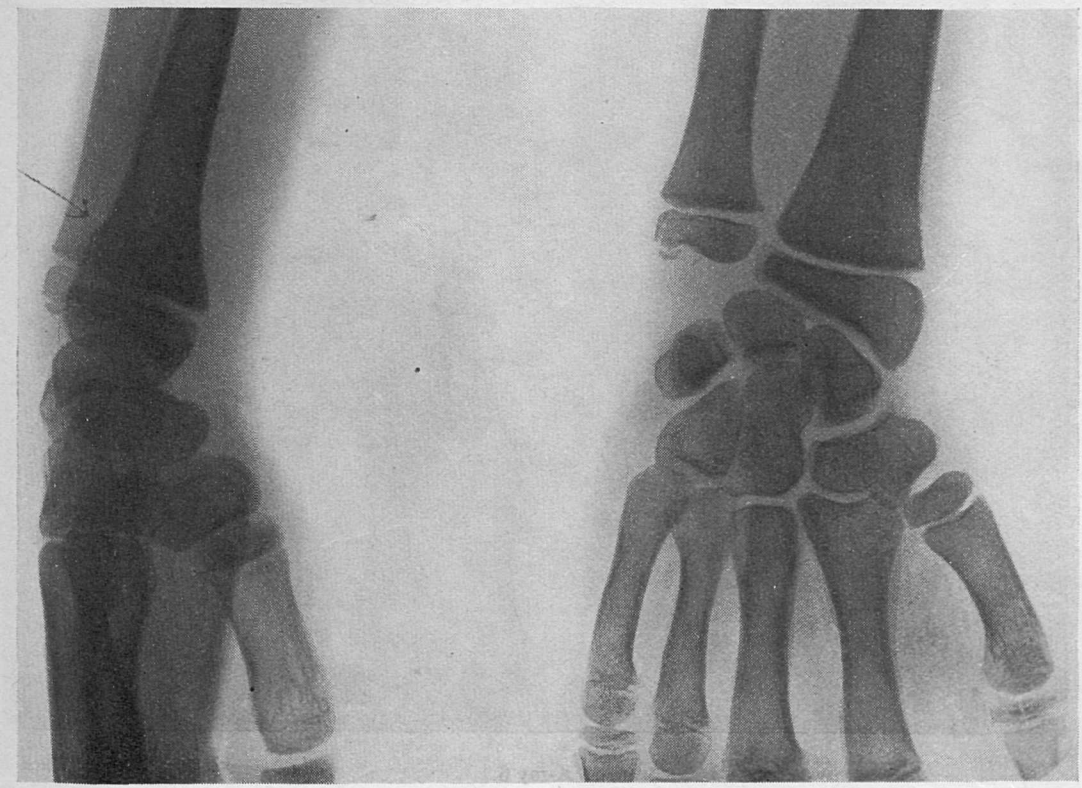
To illustrate stability of inner segment of wrist in T-shaped fractures.

Note.—Ulna not fractured. Triangular fibri-cartilage intact. Inner part of articular surface of radius attached to ulna and inferior radio-ulnar joint not injured.

An appreciation of the rôle played by the triangular fibro-cartilage in these injuries probably explains a thing that has been puzzling me for years. It is well known that comminuted T-shaped fractures into the wrist joint are often quite easy to reduce, and give rise to surprisingly good cosmetic and functional results. I think the explanation is that in a large proportion of these cases the ulna styloid is not fractured. In these circumstances the fibro-cartilage remains intact and attached to the inner portion of the articular surface of the radius, and therefore the inner part of the wrist is stable; consequently it is easier to maintain the fragments in proper alignment (Diagram 5).

TREATMENT OF COLLES' FRACTURE

There is no difference of opinion about the method of reducing these fractures, but there is, however, some controversy over the question of fixation. For reduction a general anæsthetic is essential in order to obtain adequate relaxation. An assistant holds the elbow and traction is applied for a few minutes. This traction corrects the backward tilt and radial deviation, the backward displacement is reduced by pressure on the



X-rays 4 and 5.

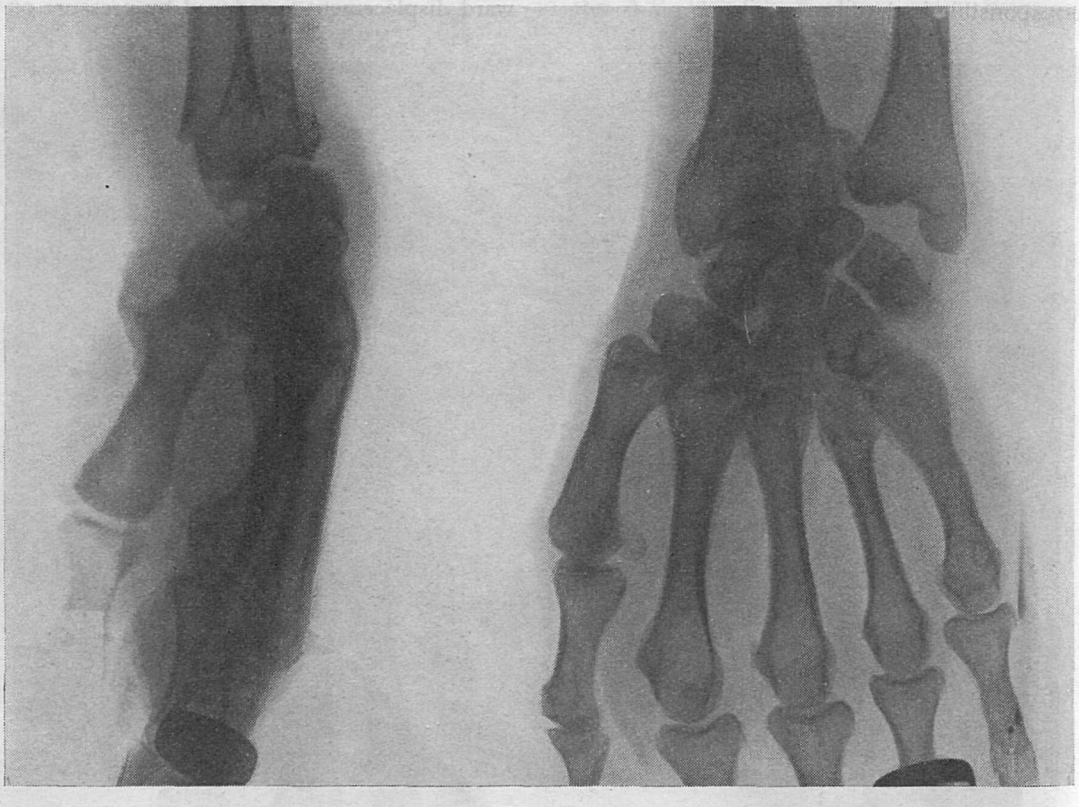
dorsum of the lower fragment with the thumb, and the supination twist by forcible pronation of the hand. The usual method of fixation is by means of a skin-tight plaster extending from the forearm to the knuckles with the hand a little flexed and ulna deviated. The fingers are left free and the patient is encouraged to use the hand as normally as possible.

In my fracture clinic, however, we have found that, in spite of good reduction and a well-fitting skin-tight plaster, a certain proportion—10 to 15 per cent., or even more—tend to slip somewhere about the tenth day. There is never a posterior displacement, but there is a backward tilt or rotation of the lower fragment, also some radial deviation. In order to overcome this I have fixed the wrist in a skin-tight plaster in full flexion, and even in this position I have seen the deformity recur. The explanation of this phenomenon is that there is actual loss of substance through crushing of the laminæ on the dorsal and outer aspect of the radius, and during the process of repair the bones become soft, so, unless the hand is well fixed, there is nothing to prevent this displacement. In the standard method, however well moulded the plaster cast may be, sufficient fixation does not appear to be provided to overcome this tendency; moreover, it does not immobilise the inferior radio-ulna joint in those cases where one presumes the fibro-cartilage to be fractured (X-rays 6, 7 and 8).

At present we are trying the effect of including the elbow in the plaster with the hand in extreme pronation and ulna deviated. We included the flexed elbow not so much with the idea of providing counter-traction, but to maintain this degree of pronation. We think that full pronation locks the lower ends of the radius and ulna together and prevents them from slipping; furthermore, it completely corrects the supination twist. I have kept the plaster on for five weeks and ultimately got a perfect result. This, however, seems to be unnecessarily long; three weeks like this followed by two weeks in a short plaster is probably the

X-rays 6, 7 and 8.

Three X-rays to illustrate slipping in spite of good reduction and skin-tight plaster.



X-ray 6.

Original X-ray. Note bad position.

ideal method. It is not necessary to treat all cases in this extreme fashion; we reserve it for those where there appears to be marked loss of substance, and especially where the ulna styloid is fractured at its base. One interesting thing is that it seems to be the only position in which one can get the ulna styloid back into normal alignment.

COMPLICATIONS OF COLLES' FRACTURE

1. *Pain in the region of the lower end of the ulna.*

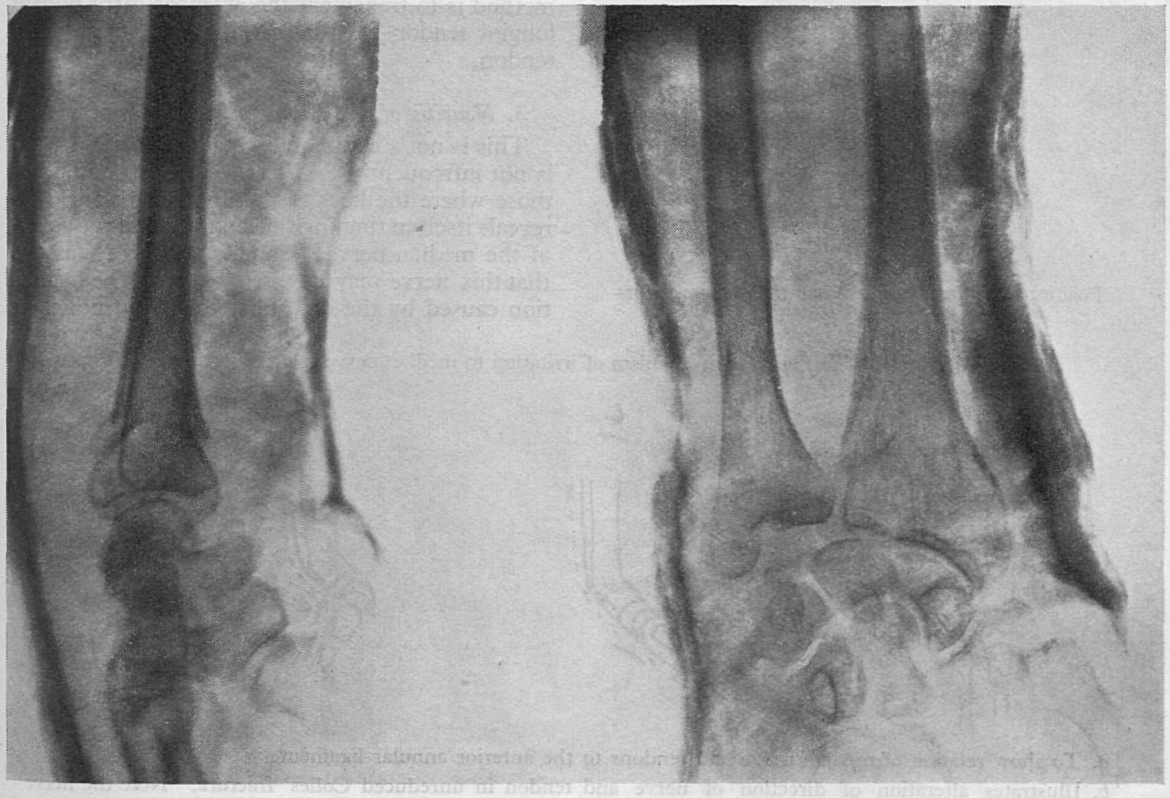
Although the functional result of a Colles' fracture on the whole is good, this is one symptom which is apt to be very troublesome. It is more common in cases of mal-union, but often occurs in those with good alignment. It is always on the inner side in the region of the head of the ulna, most marked on pronation and supination, sometimes accompanied by a click, always associated with a feeling of weakness, and sometimes the head of the ulna seems to be unduly mobile. I believe the explanation is that the triangular fibro-cartilage is loose. One would expect it, of course to be commonest in those cases where the ulna styloid has failed to unite, but no doubt it is possible for the cartilage to be torn without any injury to the styloid process.

This symptom is apt to be confused with osteo-arthritis. As a matter of fact, osteo-arthritis, though a common complication of carpal injuries, is, in my opinion, uncommon after Colles' fracture. Some authorities think that the arthritis is in the inferior radio-ulna joint, and that it occurs mainly in cases where the fracture has gone into the inferior radio-ulna joint, but I have seen this persistent pain just as frequently in those cases where the fracture has not passed through that joint, and, moreover, it occurs much too early to be attributable to osteo-arthritis. I believe the explanation of a loose fibro-cartilage is a more reasonable one.

2. *Rupture of the extensor pollicis longus.*

This interesting complication is not by any means rare; it is a spontaneous rupture of the tendon occurring somewhere about the second or third month, sometimes earlier, after a Colles'

X-ray 7.



Well reduced in well-fitting skin-tight plaster.

fracture. The patient may complain of a little pain in the region of the dorsum of the radius

X-ray 8.
Position when plaster was resumed. Note recurrence of backward tilt.

beforehand, or there may be no premonitory symptoms. While performing some trivial action there is a sudden twinge and the terminal phalanx of the thumb drops. The rupture occurs at the point where the tendon leaves the groove on the dorsum of the radius, never at the level of the fracture. It occurs just as often in cases with little or no deformity as in those with marked deformity; neither, apparently, does the trauma of the manipulation influence this condition, as I have seen it in cases where no manipulative reduction of the fracture had been necessary.

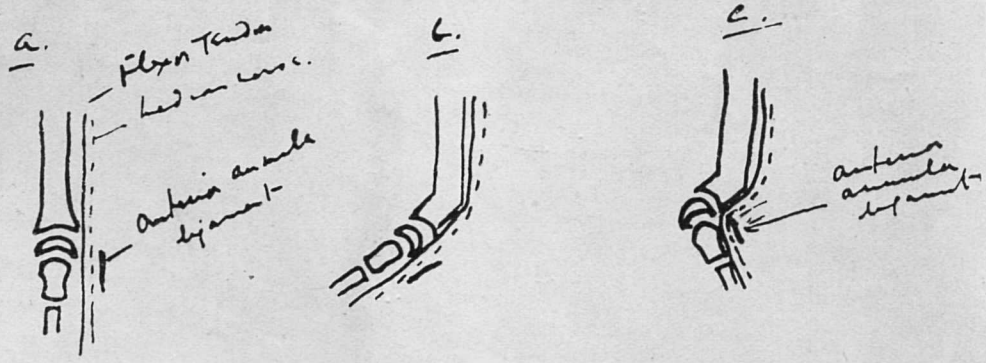
The cause of this complication is not clear, but it is presumed that following the fracture an effusion forms in the sheath of the tendon, which becomes so tense as to cut off its blood supply. It is not, however, a satisfactory explanation.

If the disability is great enough, and this is not by any means always the case, the only treatment is to repair the tendon. This can never be done by direct suture, as the ends are so frayed. Some form of tendon transplant is therefore necessary. Mr. Massie has had some excellent results by means of free tendon transplant, that is to say, bridging the gap, after freshening the edges of the ruptured tendon, with a piece of tendon excised from the palmaris longus. Another method is to transplant the extensor carpi radialis longior tendon into the distal end of the divided tendon.

3. *Neuritis of the median nerve.*

This is not a common early complication, but it is not infrequently seen in late cases, especially in those where the backward deformity persists. It reveals itself in tingling sensations along the course of the median nerve. Some authorities maintain that this nerve may be stretched over the angulation caused by the deformity, but I do not think

Diagram 6.—To illustrate mechanism of irritation to median nerve in wrist injuries.



a. To show relation of median nerve and tendons to the anterior annular ligament.

b. Illustrates alteration of direction of nerve and tendon in unreduced Colles' fracture. Note the nerve is separated from the bone by the flexor tendons and is not likely to be irritated by the angulation.

c. Note the kinking of the median nerve over the upper margin of the anterior annular ligament.

that this is the correct explanation. The anterior annular ligament which bridges the carpal arch and converts it into a tunnel under which the tendons and nerves pass into the hand is a resistant structure with a well-defined upper margin. As a result of the angulation the nerve and tendons alter their course and the nerve, which lies superficially, is liable to become kinked at the upper margin of the annular ligament by flexion movements (*vide* Diagram 6, A, B and C). If this explanation is correct, then the simple operation of dividing the annular ligament vertically ought to cure the neuritis. I have not had an opportunity of testing this theory yet.

4. *Neuritis of the ulna nerve.*

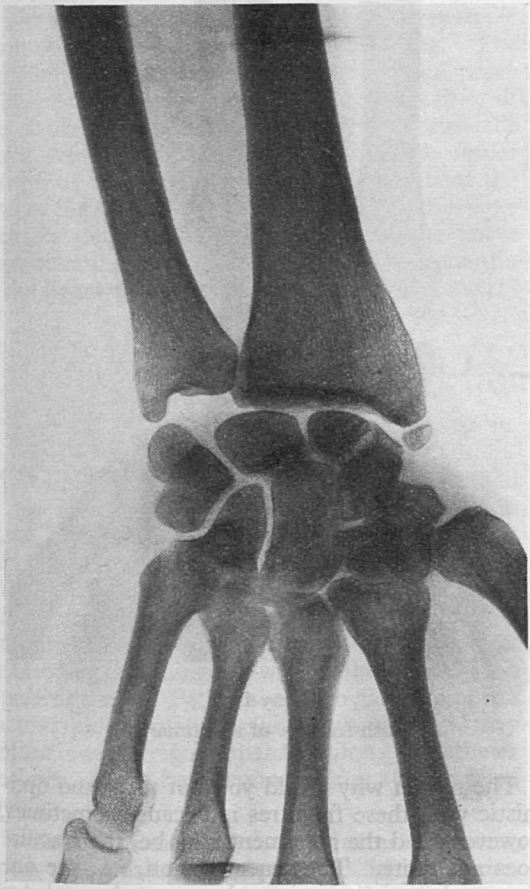
Contrary to what one would expect, neuritis of this nerve is extremely rare. Since the Fracture Clinic has been in existence we must have seen over 200 cases of Colles' fracture, but I have not seen a case of ulna neuritis. As a matter of fact when you come to think of it, although the ulna nerve is close to the head of the ulna, it is not in a particularly vulnerable position. It lies superficial to the annular ligament, the deformity on the inner side is never marked to the same degree as the outer side, and radial deviation of the wrist will tend to slacken rather than tighten the nerve. The cases which are likely to give rise to an ulna neuritis are those where the lower end of the ulna is fractured. We have had five of these cases, and in none of them has there been an ulna neuritis.

5. *Trophic changes.*

Occasionally, especially in old people, curious trophic changes may follow a Colles' fracture.

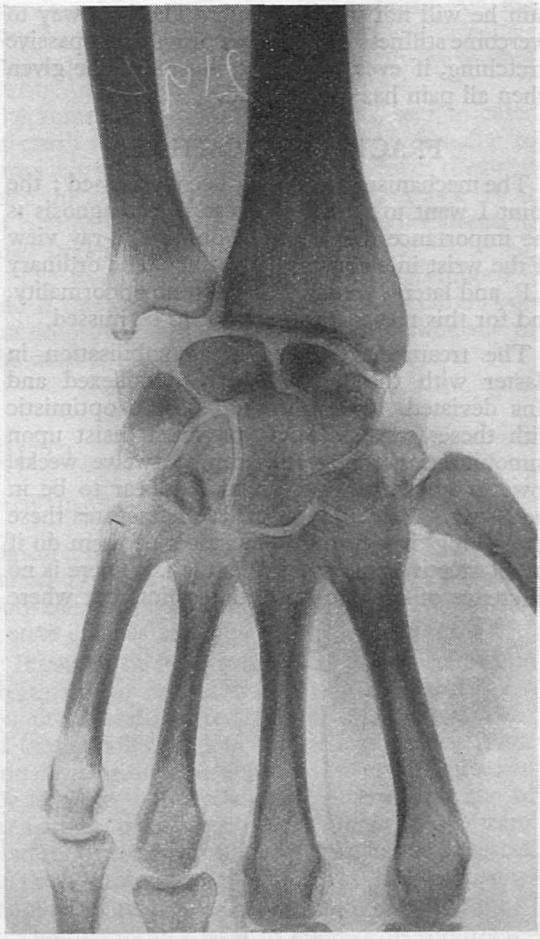
X-rays 9 and 10.

Two X-rays to illustrate result of drilling operation, fractured scaphoid.



X-ray 9.

Scaphoid fracture not united after nine months.



X-ray 10.

Same case united four months later after drilling operation.

It is characterised by pain in the wrist, palm of the hand, and fingers, is made worse by movements, but may be constant and is often particularly bad at night. The hand and fingers are cold and blue, the finger tips are tapered, the nails brittle, and X-rays shows marked osteoporosis of all the bones. Fortunately it is not a common complication, and on the whole occurs mostly in those cases where the treatment has been unnecessarily irritating, such as early passive movements to prevent stiffness. My impression is that it is less common in these days when passive movements are absolutely forbidden in the treatment of Colles' fracture.

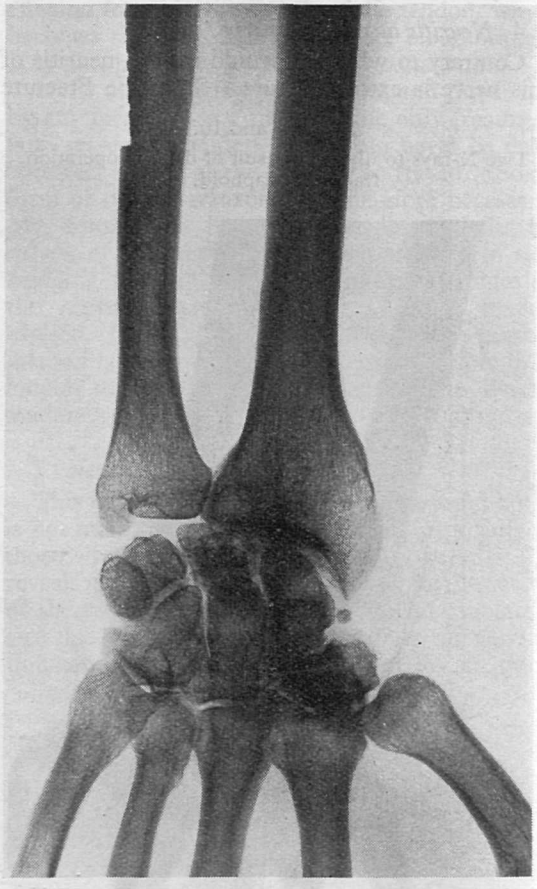
The treatment consists first of all in relieving pain, and for this nothing short of complete immobilisation of the wrist and fingers in plaster is sufficient. Only too frequently doctors are more concerned about the stiffness than the pain, but this is a mistake, for so long as the patient has pain he will not use his hand. The best way to overcome stiffness is by active normal use—passive stretching, if ever necessary, must only be given when all pain has disappeared.

FRACTURED SCAPHOID

The mechanism has already been discussed ; the point I want to stress with regard to diagnosis is the importance of having an oblique X-ray view of the wrist in all suspected cases. The ordinary A.P. and lateral views often show no abnormality, and for this reason cases are apt to be missed.

The treatment consists of immobilisation in plaster with the wrist slightly dorsiflexed and ulna deviated. You must not be too optimistic with these fractures, and you must insist upon immobilisation for at least ten to twelve weeks, however good the position may appear to be in the X-ray. Like all intra-articular fractures these take a long time to unite, but most of them do if the plaster is kept on long enough. There is no difference of opinion upon this point, but where views differ is on the question of what should be done in those cases where the fragments are in bad alignment. I have seen these cases unite after prolonged immobilisation in plaster even when the position is bad, but a subsequent arthritis of the wrist seems to be inevitable. Personally, I think these cases ought to be operated on and the fragments put into a good position, and, if necessary, fixed by means of a bone graft. The restoration of perfect alignment is what one always aims at in all intro-articular fractures, and I do not see why the scaphoid should be an exception to the rule.

Note squashing of median nerve against anterior annular ligament.



X-ray 11.
Crush fracture of semilunar.

The reason why I told you not to be too optimistic with these fractures is because sometimes, however good the alignment may be, the fracture does not unite. The inner portion, *i.e.*, the one nearest the semilunar, may become sclerosed due to the cutting off of its blood supply. If immobilisation is maintained for long enough—at least

six months—it may unite, but more often it does not. In such cases something more drastic may have to be done. The simplest operation is to cut down and drill holes into the sclerosed portion. This alone often succeeds, but the surest way is to insert a small bone graft (X-rays 9 and 10).

DISLOCATED SEMILUNAR

At first sight in the X-ray 3 (*vide* diagram) one would think it was impossible to reduce these without open operation, and yet it can be if you get the case early enough. All that you have to do is to pull on the fingers a long steady pull for about ten minutes, and the semilunar gets pushed back into position by the tautening of the tendons which lie over it. There is one manœuvre which you must be most careful to avoid, or at any rate use with great caution, and that is to try and push back the semilunar into position by digital pressure. It is common with these dislocations to get tingling in the fingers as a result of irritation of the median nerve, and I have seen irreparable harm done to this nerve by rough handling. The mechanism of the irritating of the median nerve is interesting. It is not due to direct pressure of the displaced semilunar on the nerve because the flexor tendons separate the two. The upper margin of the anterior annular ligament is at the level of the semilunar bone, so that when this bone becomes displaced forward it pushes the nerve from behind up against the anterior sharp margin of the ligament (Diagram 6—E).

If you fail to reduce the dislocation or if a case has come to you late, then you must operate. The dorsal approach is usually recommended, but I have found it extremely difficult to try to lever the semilunar back into position. It seems to me that an anterior approach would be less traumatic.

As in fractured scaphoid so in dislocated semilunar you must not be too optimistic, for an exactly similar sclerosing process may occur which goes by the name of Keinboch's disease. As a result of the dislocation the ligaments may be so injured that the blood supply to the semilunar is cut off and the bone undergoes a quiet necrosis as shown in the X-ray by a dense shadow. The patient always complains of pain and limitation of dorsiflexion and plantarflexion. The treatment is prolonged immobilisation in plaster, usually not less than six months. Strict immobilisation is essential in order not to injure the delicate nutrient vessels which are trying to reform. As the condition improves the dense shadow becomes broken up by clear areas, and eventually the normal texture of the bone is restored.

A somewhat similar appearance is seen in cases of crush fracture of the semilunar, either due to gross injury such as falling on the palm of the hand with the arm vertical to the ground, or as a result of repeated minor traumata as sometimes seen in road drillers (X-ray 11).

The treatment is the same as for Keinboch's, and if the symptoms in both these conditions do not improve after six months an arthrodesis of the wrist is the only alternative.

Hæmaturia

A Clinical Lecture by W. D. Doherty, Esq., M.Ch., F.R.C.S.

GENTLEMEN,—The appearance of blood in macroscopic or microscopic amount in the urine is always a symptom of grave importance. It indicates the presence of a pathological lesion in the urinary tract, and the investigator should not be satisfied until he has determined from what part of the urinary tract the bleeding is coming and what pathological lesion is present there. Patients seldom fail to report a macroscopic hæmaturia, although women may confuse it with irregular menstruation. A catheter specimen should be obtained in any such case of doubt.

It must be remembered that, in many lesions, blood may make its appearance in the urine without any other symptom; the bleeding may be of small amount and not recur again for three to six months. During this period, the pathological lesion will be progressing and, if any medication is given without ascertaining the cause, both the doctor and the patient may be lulled into a state of false security.

It cannot be too strongly stated that there is no treatment for hæmaturia *per se*. Hæmaturia is a symptom, and the treatment of it is the treatment of the pathological lesion which causes it. Time and time again I see patients in my Out-Patient Department who have had recurring attacks of hæmaturia over a period of months or years. Had they been investigated on the first appearance of the symptom, a growth or other lesion, now inoperable, might have been easily dealt with.

The first thing I want to impress on you, therefore, is to investigate every case of hæmaturia on its first appearance. Do not wait and see if it recurs again, as the patient will wish you to do.

It almost certainly will recur, and you will have wasted valuable time. How then will you proceed to examine a patient with this symptom?

1. First of all, go carefully into the *History*. There are certain questions which you will always find it advisable to ask :—

(*a*) Is the hæmaturia accompanied by any other symptom referable to the urinary tract, *e.g.*, pain or frequency of micturition? Renal colic, accompanied by hæmaturia, suggests the presence of a stone. Frequency, accompanying hæmaturia, is evidence of some irritation of the bladder or an inflammatory lesion.

(*b*) Is the blood intimately mixed with the urine or does it make its appearance at the beginning or end of micturition? Blood appearing at the beginning of micturition, with clear urine later, is suggestive of bleeding from the posterior or anterior urethra. Blood appearing at the end of micturition only, is suggestive of a bladder lesion.

(*c*) Are there any other symptoms not referable to the urinary tract, *e.g.*, dyspepsia or other intestinal symptoms, thirst, headache, shortness of breath, œdema of feet, etc.?

(*d*) Is there any previous history of renal or other disease?

2. Proceed now to the *Physical Examination*. Pay special attention to the external genitalia. Be on the look-out for enlargements of the testis or epididymis. Remember that a varicocele may be evidence of a growth of a kidney and a nodule in the epididymis evidence of tuberculous or other infection of the urinary tract. Examine the penis, not forgetting that much may be concealed behind a tight prepuce, *e.g.*, a carcinoma of the glans. In women, look for small urethral caruncles and do a vaginal examination to exclude a pathological lesion in the pelvis. Palpate both inguinal regions; the presence of glands along the inguinal canal may be evidence of carcinoma of the uterus or prostate.

During palpation of the abdomen, examine especially the suprapubic and lumbar regions. Sit the patient up and examine his back; look for swelling or œdema in either renal area. You may get evidence in the suprapubic region of residual urine or growths of the bladder; in the lumbar region of hydronephrosis, pyonephrosis, perinephric abscess or growth of the kidney.

Complete the physical examination by a rectal examination. In the male, examine carefully the prostate and seminal vesicles. You may find some evidence of tuberculosis, acute or chronic prostatitis, simple hypertrophy, calculi, or carcinoma of the prostate.

Now examine the urine chemically and microscopically for abnormalities other than blood. The presence of albumen, sugar, casts, pus cells or bacteria may all help in the diagnosis. Blood, albumen and casts signify acute nephritis. Blood, pus and bacteria signify some inflammatory lesion but, in tuberculosis, blood and pus cells may be present without any bacteria being detected.

On completion of these examinations, some idea may have been obtained as to the situation of the lesion, but, in a number of cases, especially the otherwise symptomless hæmaturias, no physical signs will be elicited and the diagnosis will still be in doubt.

Conclusive evidence of the site of the bleeding may be obtained by cystoscopy whilst the hæmaturia is present. For this reason I always cystoscope a patient with hæmaturia when first seen at Out-Patients, unless there is some strong contra-indication. Bleeding will be seen coming from the bladder or in the efflux from either kidney. The importance of this examination cannot be too strongly stressed.

In the absence of obvious hæmaturia at the time of the first examination, it is wiser to proceed with preliminary X-ray investigation before the cystoscopy. A picture of the urinary tract taken before and after the intravenous injection of uroselectan is essential. In this way, stones, hydronephrosis, or filling defects in kidney or bladder, will be revealed; or the failure of one kidney to excrete the dye will point to it as the probable source of the bleeding.

The cystoscopy can now be proceeded with and a retrograde pyelogram done on one or both sides to confirm the presence of a stone or filling defect, or, alternatively, to outline the pelvis of a kidney which has not excreted the dye.

The retrograde pyelogram is obtained by passing a ureteric catheter up the ureter and running in a solution of 20 per cent. sodium bromide by gravity until the renal pelvis is full. The solution is opaque, and will give evidence of any abnormality involving the pelvis.

By these three means, *i.e.*, cystoscopy, intravenous and retrograde pyelography, it is possible to localise most lesions in the urinary tract. Every now and again you will come across a case of hæmaturia in which full investigation fails to locate a pathological lesion. It has been customary to label these cases as "essential hæmaturia." I would prefer to label them as "undiagnosed hæmaturia," for I am sure that, with increasing accuracy in diagnosis, these cases will be few and far between.

I do not propose to give you a complete list of the causes of hæmaturia, for their name is legion, but I will give you a list of the common things and remind you, as I have done many times before, that " the common things commonly occur." Common causes of hæmaturia :—

Lower Urinary Tract

1. Papilloma of bladder.
2. Stone in bladder.
3. Simple hypertrophy of prostate.
4. Carcinoma of bladder.
5. Acute cystitis.
6. Carcinoma of prostate.

Upper Urinary Tract

1. Stone in kidney or ureter.
2. Tuberculosis of kidney.
3. Hydronephrosis or pyonephrosis.
4. Neoplasm of kidney.
5. Trauma.
6. Acute nephritis.

Reviews

Bushveldt Doctor. By LOUIS C. LEIPOLDT. Published by Messrs. Jonathan Cape, Ltd. *Price* 10*s.* 6*d.*

OF recent years we have had a number of books—including novels—good, bad and indifferent, by medical men distinguished and unknown dealing with matters on the borderland of medicine and of interest to laymen and doctors alike. Here is another, a good one by a distinguished man. In it will be found food for thought, with much that entertains on a variety of matters that are of as great interest to us at home as to the people of South Africa. In addition are descriptions of scenes and sites some of which we long to see, others which we are thankful we have not, but all of them raising again that desire to wander which is, perhaps, not sufficiently in evidence among the younger members of our community to-day, but is distressing to those who are growing old and can no longer gratify it. To anyone, therefore, medical or non-medical, we would give the advice to put this book on the library list; and if half-guineas and room for bookshelves are matters of little moment, to purchase it for re-reading and for reference.

To Guy's men and women, however, and particularly to those who came up in the early years of this century, the book has a special interest, for Dr. C. Louis Leipoldt—if we remember rightly he has turned around his Christian names —was one of the most remarkable men that were about in the first six years of this century. Born in Sumatra, he was, as he tells us himself, the son of a missionary; both his grandfathers and a great-grandfather were also missionaries. His father, " after ruining his health in the Sumatran jungles, came back to South Africa, and accepted an appointment as a pastor to a Dutch Reformed congregation in the south-western part of the Cape Colony." And there he was a growing adolescent when the South African War broke out. We cannot speak with authority as to the story of his migration to England; we believe that, when it is told, it will prove to have been to the credit both to him and to another very great man; but many of us will remember him as a rather gawky, loose-jointed, long-haired youth speaking English in what his First School nurse, Miss Frances Hassall, called a " gutturalness," but which he describes as having " curious sounds that are known as ' glottic catches,' " to which he adds that " in comparison with English it (viz., Afrikaans) is certainly not a language that presents great difficulty in pronunciation," a remark that may represent a memory of those first days at Guy's.

It was some years later that I learnt that during the whole time he had been over here he had been keeping himself by journalism, paying for his fees to the School and for the examinations that he went in for. We were dressers on the same firm. In the week that he was " taking in " he brought his typewriter up to the Surgery, and settled down to work at it when he took over the Surgery for the night after all the rest of us had gone to bed. By the time he was qualified he was earning a good income, was already more known to people outside our profession than the majority of us ever attain to, and he had the ability to use what he had learnt from minds outside medicine in a way that this book, which tells of his middle years, brings out. He had a mind like Macauley, with an extraordinary power of memorising vast quantities after a single reading and without effort. I well remember a firm dinner at Mr. Symonds', at which the two discovered a common admiration for the poems of Matthew Arnold and how Leipoldt poured out line after line of Schrab and Rustum, much to the delight of the old man, as we then called him, although in fact he was only fifty-three. He was very good to me after

we were qualified, and used to put me in the way of earning half-guineas—and sometimes even whole ones—writing notes and short articles for the *Hospital*, a small medical paper that he then edited. We got through the Final Fellowship on the same day, and after dining at a little restaurant in Soho that he had discovered and drinking between us a bottle of champagne and one of port —for both of which he paid—we went on to Pelissier's Follies in the hopes of hearing :—

" Port ! Port ! no Briton ought
To think that he has done his duty,
Till he has felt
Beneath his belt
A bottle of the rare old fruity,"

—but listened instead to " Moon, Moon, Serenely Shining," which brings us back to his book with the moon shining over the Mabolel, and as it is doubtful whether there is a single Englishman who knows what this is, he had better get the book and find out.

We would especially recommend this work to candidates for examinations. It is almost impossible to get such persons away from their textbooks, yet we know that if we could do so for a month they would have a much better chance of getting through. Here then is a work that is not medicine, but which will teach one much how to use knowledge, which will provoke thought on genetics, school inspection, preventive *versus* convalescent treatment, what a common cold is, and the value of symptomatic treatment. It may even help them to answer a question. We do not suppose that they will get one on bilharzia or even malaria, but to have read this book is much more likely to enable them to answer such a question than to have tried to learn it by heart from a textbook. T. B. L.

Correspondence

The Spongebags' Lament

To the Editor of the GAZETTE

SIR,—A " poem " (?) which has come to me anonymously seems to me to sum up very aptly certain recent alterations within the Hospital walls. As all that concerns Guy's may be of interest to your readers, I venture to append a copy.

Yours, etc.,

A SPONGEBAG.

Guy's Hospital,
S.E.1.

THE SPONGEBAGS' LAMENT

The Hospital is very short of money !
They nearly couldn't pay your wage, I hear.
The net result to you—well, isn't honey ;
They've docked you of a week in every year.
Thus, four weeks' holiday instead of five ;
Enough to make you wish you weren't alive !

The Hospital is very short of money !
To give less uniform will save them cash.
For some of you it isn't quite so funny,
Although in overalls you'll cut a splash.
Patients who reverence a uniform
Will treat an overall with lofty scorn.

The Hospital is very short of money !
They think you ought to work a longer day.
The prospect for you isn't very sunny,
They don't suggest an increase in your pay !
Thus, while the nurses and the scrubbers thrive,
The Spongebags wish that they were not alive !

The Hospital Musical Society

To the Editor of the GAZETTE

SIR,—The Hospital Musical Society is giving a concert early in June, and plans are going ahead for a more ambitious performance in the autumn. At present, the nurses far outnumber the male members of the Society, a position which appears to indicate an unfortunate lack of musical appreciation among the students. I am therefore taking this opportunity to invite new members to come forward.

Rehearsals are held on Mondays from 6 to 7 p.m., in the Lower Gymnasium of the Massage Department.

Let no one be put off by an excess of caution, or fear of criticism. All that is necessary is enthusiasm, and the ability to enjoy music.

Yours, etc.,

B. P. GRIFFIN,
Hon. Secretary.

Guy's Hospital,
S.E.1.

Appendicitis or Pyelitis?

To the Editor of the GAZETTE

SIR,—In the last two months at least two emergency acute abdomens were taken in as cases of acute appendicitis and subjected to operations when in fact the diagnosis was acute pyelitis. This occurred in spite of the fact that the urine was examined in each case in the Surgery and was found macroscopically to be free from pus.

May I suggest that in the circumstances it would not be an extravagance to provide a centrifuge apparatus and a microscope in the Surgery so that such errors may in future be avoided by more thorough urinary examination.

It is a matter of clinical experience that in the early stages of pyelitis pus is frequently only detectable by centrifuging the urine and microscopically examining the deposit.

Yours, etc.,

E. B. BERRY.

Guy's Hospital,
S.E.1.

"A.R.P."

To the Editor of the GAZETTE

SIR,—We are worried about our safety. At home we have taken provision against mustard gas, lewisite, and all indirect effects of bombardment, through the generous advice of the *Daily Express*. A direct hit alone can break down our immunity built up with plasticine, seccotine, coke, druggets and hanging blankets, together with a week's supply of cocoa, butter, black bread and tincture of katechu.

But when we leave home in the mornings we are followed by the anxious glances of our wives and a mounting queasiness, for what protection have we while at our work? The Hospital Authorities must have some plan, but what do we, for whose protection (we hope) it is designed, know of it? Our own safety is of paramount importance; we are all prepared to give something in a national emergency—even our relatives—and we feel that the Hospital must give us safety. If our own protection is not assured, who is going to look after the patients when the echoes of the last bomb have died away in the far distance? Clearly we *must* be saved. But, to be saved, we must know where to go. Lately we have all been looking for nooks, but we doubt if there are enough crannies for half of us, and all lack those facilities so carefully prepared at home. With what crannies will the Superintendent provide us—the subsequent indefatigable salvagers? We must be kept in the best possible trim to deal with not only the internal casualties, but also the external influx which, in this populous district, should be guaranteed to reach a peak level.

We feel that desirable publicity might be gained, and possibly even a State subsidy achieved, if an energetic campaign were begun here to organise facilities for dealing with air-raid casualties; the lead has already been taken by the L.C.C., and if we are behindhand we shall lose in prestige both with the public and the Government, which we can ill afford to risk. But the primary consideration should be the protection of ourselves.

Now, Sir, what plans have been made if the catastrophe happens to-morrow?

Yours, etc.,

CASABIANCA.
GRACE DARLING.

Guy's Hospital,
S.E.1.

P.S.—We know of twenty other people who have earmarked the Superintendent's cellar.

The Dental Clinical Meeting and Dinner

THE Clinical Meeting of the Guy's Dental Society was held on Saturday, March 5th. The purpose of the meeting is to keep old Guy's men in touch with all the latest developments of the profession. The vast number of members who attend every year is evidence of the importance of this gathering. Commencing at 10.30 a.m., the session continued until 4.30 p.m., when tea was provided.

In the evening the Annual Dinner, in its dignified lighter vein, was held at Grosvenor House, where the proceedings were graced with the presence of the constellations of the profession, together with a goodly modicum of rising students.

In the toasts, Mr. Eason, proposing the Hospital and Schools, remarked that Guy's provided one-quarter of the Dental men in this country. He also stressed the pathetic state of the Hospital's finances.

Prof. T. B. Johnston, replying for the Hospital, commented on the wealth of the Dental and Medical Schools which contrasted favourably with the poverty of the Hospital. He also said that he, when Dean, found that the Dental School appeared to run by itself; just a word or two to Mr. Doubleday on Keats or to Mr. Kelsey Fry on Horticulture and all was peace within!

Mr. T. J. Evans, replying for the Schools, gave

the story of his dental experiences. His first tooth was removed in the hardware department of a village store, the next by "The Dentist," who travelled around in a pony-cart selling goods as well.

Mr. G. B. Pritchard proposed the toast of the visitors; Mr. Bryan Wood, the President of the British Dental Association, in replying, expressed his appreciation of Guy's.

Mr. Hooper, proposing the President, dilated upon his qualities not only in the profession but also at tennis and alpine climbing.

Mr. W. E. Herbert, in his reply, announced with regret that Mr. Montagu Hopson, Guy's first dental student, was unfortunately unable to be present. The President also paid warm tribute to the work of the secretary, Montagu Malleson.

The toast of the Secretary was drunk with enthusiasm, and in thanking the members he remarked that it was a source of satisfaction to him to report that 420 were present.

The company was entertained by Mr. Jack Worner, with Bobby Alderson, Mr. Harry Brunning and Mr. Cecil Johnson.

N. F. C.

Sport

Rugby

Guy's v. Old Cranleighans

(At Thames Ditton on Saturday, February 26th.)

THE Hospital accomplished an excellent performance when they followed up their success over the Old Millhillians by defeating the Old Cranleighans on their own ground by 2 placed goals (10 points) to a placed goal and a try (8 points).

R. C. S. Dick, H. H. Crabb and K. A. Stanyon-Jacques were notable absentees from the Hospital side, and, considering that the Old Boys were practically at full strength, Guy's did exceedingly well against their opponents, who have had a very good season.

Guy's took advantage of the wind in the first half and scored all their points before half-time. However, after the interval the Old Boys attacked so strongly that the result was in doubt until the end.

Guy's won most of the set scrums, but when the Old Boys did get the ball they were smarter in their heeling, and Alan Key, playing at the top of his form, took full advantage of the opportunities that came his way.

On the other hand, Eustace, when not smothered by Key, managed to send out some excellent passes to Allen, and in the first half in particular many entertaining bouts of passing were seen, with Louis Babrow to the fore. As a whole the Hospital three-quarter line were superior to their rivals, but as a pair the Old Boys' halves had a better understanding than their opposites.

Guy's had most of the play in the early stages, and after ten minutes' play Kynaston only just failed to drop a goal, but a little later a magnificent bout of passing between Forbes, Allen, Babrow and Darke ended in Morey scoring an excellent try, which Kynaston converted.

Although Guy's came within an ace of scoring on several occasions, they did not increase their lead until a few minutes before the interval, when Eustace was allowed to go through the Old Boys' defence, without hindrance, and he grounded the ball near the posts for a try, and Kynaston again added the goal points.

Following the change of ends the wind had so increased in force that Guy's were compelled to remain largely on the defensive, and it is to the credit of the Hospital that they were able to withstand such continued assault.

The efforts of Couchman, Goodall, Key, Lambert and Vesey were magnificent, but they were unable to score until fifteen minutes of the second half had elapsed. Then Couchman made a splendid run and paved the way for A. L. Cramb to score an unconverted try.

In spite of some fine defensive work by the Hospital in which Babrow stood out in particular, W. E. Vesey took advantage of a misunderstanding and raced in under the posts for Goodall to convert.

Having reduced the deficit to two points, the Old Boys attacked strongly, and gave Guy's very little rest. However, there was no further scoring and the Hospital ran out winners as stated.

Team.—J. P. Crawford; L. G. Morey, R. U. F. Kynaston, L. Babrow, A. B. Baxter; R. D. Allen, T. H. Eustace; G. P. A. Sechiari, E. S. Nicholson, F. R. Turner, A. Forbes, P. Fletcher, C. S. Darke, R. O. Yerbury, C. Vidot.

Guy's v. King's College Hospital

Inter-Hospitals Cup, Second Round (Replay), at Richmond on Tuesday, March 1st.

ONCE again Guy's and King's met to decide who should meet St. Thomas's in the Semi-Final, and, after another hard struggle, Guy's just managed to win by 2 tries (6 points) to a try (3 points).

It was unfortunate for King's that they had to take the field without one of their wing three-quarters and their captain, D. F. Glass. On the other hand, influenza robbed Guy's of the services of H. H. Crabb, their secretary; otherwise they were at full strength.

Winning the toss, King's took advantage of the wind, and for the first quarter of an hour pinned Guy's in their territory. Although Nicholson got the ball in most of the set scrums, the forwards were not nearly so lively as King's, who were very quick on the ball and were on top of the backs before they had a chance.

When at last Guy's started a passing movement which carried them to their opponents' 25, they were promptly sent back and a little later a long kick up-field by J. Middleton was followed up so fast by the same player that it nearly brought a try, but Guy's just beat him for the touch-down.

However, the persistency of King's was rewarded in the next minute when Guy's tried a passing movement in their own half, but were rushed and were made to knock on.

N. G. Bynoe, a remarkably fast back-row forward, pounced on the mistake and raced through the Hospital defence, rounded Crawford, and scored an unconverted try in the corner.

G. R. Stead made a good attempt to add the goal points, and not long afterwards, from the half-way line, the same player only missed a penalty kick by a few feet.

Having recovered from these shocks, Guy's succeeded in keeping play mostly in their opponents' territory, but the multiplicity of tackles prevented any move from becoming dangerous.

After the interval Guy's took a few minutes to settle down, and from the kick-off King's rushed the ball almost to the goal-line, but Guy's replied with some long kicking to touch, which transferred play to the other end of the field. Following a series of short passing movements which carried them to the King's 25, Guy's were awarded a penalty, but Kynaston missed a good chance to equalise.

Guy's continued to hammer away, and eventually Stanyon-Jacques gathered a loose ball, forced his way through a crowd of players, ably supported by his forwards, and eventually Forbes crossed for a try to make the scores level.

As the game progressed, the Hospital backs passed and ran with greater confidence, and first Dick and then Babrow made splendid efforts to break through.

On one occasion Steed did exceedingly well to stop Dick and immediately afterwards Dick cut through the centre and punted ahead, but, although the ball bounced awkwardly behind the posts, he spoiled an excellent effort by failing to find touch. Running at top speed, Babrow caught the ball and flashed through the defence so fast that no one could lay a hand on him.

Once again the place kick failed, but Guy's were now in front and playing with more assurance and greater vigour. Babrow made one glorious run through the centre which must have brought a try had he been backed up, and on another occasion Dick was tackled only a few yards from the line.

However, no further scoring followed, and Guy's will be the first to congratulate King's, who, although defeated, were gallant losers.

Team.—J. P. Crawford; A. B. Baxter, L. Babrow, R. C. S. Dick, R. U. F. Kynaston; R. D. Allen, K. A. Stanyon-Jacques; G. P. A. Sechiari, E. S. Nicholson (captain), J. R. D. Williams, P. Fletcher, A. Forbes, C. S. Darke, R. O. Yerbury, C. V. Didot.

Guy's v. Plymouth Albion

(At Plymouth on Saturday, March 5th)

INJURIES and other causes compelled Guy's to make several changes both in the back division and the pack, but although the Hospital were defeated by a placed goal and 4 tries (17 points) to nil, the game was nothing like so one-sided as the score suggests.

The Albion fielded a stronger side than when they visited Honor Oak Park earlier in the season, and with a rearranged back division they played fine open football and thoroughly deserved their success.

The home side took the lead early in the game when Mercer paved the way for L. M. Rees to score a try which Brigstocke converted.

Shortly after, Mercer was again responsible for a magnificent burst through the centre, and, leaving the Hospital backs standing, he scored a splendid try under the posts, but the kick at goal failed.

Guy's improved after this reverse, and with Nicholson hooking consistently well, the backs were given plenty of chances. Yerbury, Williams and Kolesar played very well in the loose, but the

Albion forwards were very quick and Brigstocke and Pill in particular dribbled the ball cleverly on several occasions.

Halamandres and Van Steytler made a welcome reappearance for the First Fifteen after several months' absence, and both served their side well.

L. Babrow tried hard to keep the Hospital attack on the move, but he was well marked by E. W. N. Warn and allowed little latitude.

After the interval Plymouth continued to hold the advantage, and further tries came through G. R. Brown, Sanders and R. G. Miller, but although Brigstocke, Warn and Irish all had a shot at goal in turn, none of the tries was converted.

Both sides played attractive and open football, and one of the high spots in this game was a grand dribble by Brigstocke and a handling movement which covered nearly the length of the field, only to break down through a forward pass.

Team.—C. Halamandres; D. M. Douglas, L. Babrow, R. U. F. Kynaston, A. B. Baxter; R. D. Allen, J. van A. Steytler; G. P. A. Sechiari, E. S. Nicholson, J. P. Rochford, J. R. D. Williams, D. W. Burnford, C. Vidot, P. D. O'Kolesar, R. O. Yerbury.

Inter-Hospitals' Cup Semi-Final

Guy's v. St. Thomas's

(*At Richmond on Tuesday, March* 8th.)

AFTER another exciting struggle, Guy's reached the Final when they defeated St. Thomas's by 6 tries (18 points) to a goal and 2 tries (11 points).

Both sides were below full strength, as Guy's were unable to call on Crawford and Baxter on account of injuries and Dick had to stand down at the last moment on account of synovitis. On the other hand, St. Thomas's lacked the services of two of their outsides and one of their forwards.

It was a glorious afternoon and, although the pace was terrific from start to finish, neither side tired for a moment, and the result was in the balance until five minutes from the end, when Guy's scored two snap tries, which put the issue beyond doubt.

The first attacking movement was initiated by Allen, who punted ahead, regained the ball, and passed to Babrow. The defence held on this occasion, but a little later Babrow cut through beautifully and, timing his pass perfectly, sent Morey in for a try after five minutes' play.

For a time play was confined to the forwards, and nothing startling happened until Allen dropped a pass just outside his 25 and the ball was seized upon by Rea so unexpectedly that he was away and past Halamandres before the latter had a chance to get near him. Rea touched down behind the posts for a try, and Lytle gave St. Thomas's the lead by adding the goal points.

Guy's tried hard to regain the advantage, and on several occasions Babrow, Kynaston and Morey were dangerous and caused St. Thomas's to touch down.

An excellent passing movement started by Babrow nearly led to a score, when Kynaston received from Babrow, raced up to the full-back before passing to Douglas. The latter appeared to be clear when Fenwick, a back-row forward, got back in time and forced Douglas into touch a yard or two from the line.

However, just before half-time Guy's regained the lead when Stanyon-Jacques broke away from a scrum and dived over the line for a try, but the goal-kick was unsuccessful as one of the defenders touched the ball during its flight between the posts.

Following excellent work by Allen, Guy's forced St. Thomas's to their goal-line and, after some hard scrummaging, Stanyon-Jacques distinguished himself by scoring two more tries, each the result of a fine individual effort.

On the first occasion the full-back fumbled a high punt ahead, and Allen was in the act of scoring when a defender tackled him just short of the line. In the scramble which followed, Stanyon-Jacques raced round a mass of players and scored easily. A few minutes later the same player ran through on his own and no one could stop him; it was a great solo effort, but Kynaston failed to convert the first try and Fletcher the second.

St. Thomas's fought back magnificently, and their forwards simply stormed their way into Guy's 25. Their backs were seeing more of the ball, and after several bouts of passing, Barrow scored an unconverted try. Barrow distinguished himself several minutes later when he made a diagonal run of fifty yards to score a great try, but as Lytle missed the kick at goal, Guy's still led by a point.

It was now anybody's game, and the excitement was intense. Just when it seemed possible that St. Thomas's might win, Halamandres came up to his three-quarters, passed to Babrow, who sent Morey away at such a pace that no one could lay a hand on him, and he scored in the corner.

Good work by Allen was followed by a grand try by Crabb, who showed a surprising burst of speed which enabled him to touch down near the posts, but again the kick at goal did not succeed as the ball was touched by one of the defenders.

It was an excellent game, fought out at a cracking pace, and one of the most interesting and exciting seen at Richmond this season.

Team.—C. Halamandres; L. G. Morey, L. Babrow, R. U. F. Kynaston, D. M. Douglas; R. D. Allen, K. A. Stanyon-Jacques; G. P. A. Sechirai, E. S. Nicholson, H. H. Crabb, P. Fletcher, A. Forbes, P. D. O'Kolesar, C. Vidot, R. O. Yerbury.

Junior Cup Semi-Final
Guy's v. London Hospital

GUY'S met the London Hospital at Honor Oak Park on Wednesday, March 9th, in the Semi-Final of the Junior Cup. London, the holders, had previously beaten St. Thomas's 11—0, and Guy's had overwhelmed University College Hospital by 57 points to 6.

The conditions were ideal in every way. Guy's won the toss and faced the sun and a light wind. For ten minutes Guy's defended desperately, but the forwards soon settled down and, following a good rush into London territory, the ball came back quickly to Gartrul, who sent Birks through the centre, the latter handing on to Bruce-Turner and Hanson, who ran round the full-back to score a classic try under the posts, which Ploughman converted.

A few moments later Bruce-Turner was striding Wooller-like through the centre; Hartley was on his right, and took a perfect pass, but was bowled into the corner flag by a magnificent tackle. From the ensuing scrum Eustace wriggled over and Guy's were 8 points up.

London were back on our line at once, and weak tackling let in the London scrum half for a try, which was converted. The rest of the first half was one long agonising defence, though once Hanson dribbled 40 yards and all but scored.

Half-time came with Guy's in the lead—a somewhat battered and tired side, but taking comfort in the ever-freshening wind at their backs.

The second half had hardly started when a long rush by the London forwards ended in a score near the posts, and that was 10—8 against us.

An over-exuberant London forward was penalised two minutes later, and Kark kicked a good goal. From then onwards Guy's were hardly ever out of the London 25. First Gartrul made a fine break and Bruce Turner swept aside clutching hands and scored under the posts. Kark kicked another penalty goal, and Gartrul scored the best try of the match when he ran 30 yards through the whole London side.

Hanson scored again, and that was 27—10. Just before the end London scored a penalty goal when Ploughman laid on the ball.

The feature of the match was the perfect understanding between Eustace and Gartrul; here surely is a combination which will not soon pass into oblivion, but will go from strength to strength until—who knows?—not only Guy's but England will have need of them.

So the "A" XV have followed the 1st XV to the Final, there to do battle with St. Mary's, whom, please God, we may humble.

Association

GUY'S WIN JUNIOR CUP

AFTER a lapse of five years Guy's regained the Junior Hospitals' Soccer Cup, by defeating London in the Final of the competition at Hale End, Walthamstow, on Thursday, March 10th.

In the previous rounds we had defeated St. Thomas's 3—0, and Middlesex 4—1, London having been successful against Charing Cross and St. Bartholomew's.

Guy's, losing the toss, kicked off against a rather deceptive wind, and play during the first quarter of an hour was mostly in our half. London made several threatening attacks, but these were readily dealt with by the Guy's defence.

After twenty minutes, London opened the scoring when Higgs, who was the most thrustful opposing forward, put a well-placed shot into the far corner of the net, from a difficult angle.

Soon after this Guy's were unlucky not to draw level when Lewis James shot over the bar, with only the goalkeeper to beat.

However, after thirty minutes Wilshire sent Lewis James away on the left with a good pass, which enabled this player to put Guy's on equal terms.

During the last few minutes of the first half Guy's strived to take the lead, but no further goals were added.

In the second half, Wilshire was moved to centre-forward, with Smith taking the position of left half. This change proved highly successful; Guy's were immediately on the offensive, and after fifty minutes Wilshire gave us the lead by scoring from close range.

The forwards, combining well, and taking advantage of the following wind, gave the London backs an anxious time.

Within the next five minutes Guy's again scored through Wilshire.

After this London were never dangerous, and the few attacks they made on our goal were cleared by the Guy's defence, which was steady throughout.

With only ten minutes to go, Wilshire increased our lead by tapping the ball past the goalkeeper after a terrific scramble in the London goal-mouth, and when the final whistle blew Guy's were still pressing strongly.

Result.—Guy's, 4 (scorers—Wilshire, 3; Lewis James, 1). London, 1 (Higgs).

Team.—N. J. Crane; N. L. McNeil, C. Halamandres; D. E. Williams, G. M. Pearson (capt.), R. S. Smith; J. E. Jones, J. A. Williams, B. R. Wilshire, J. R. L. Goldman, Lewis James.

Fencing

THE Fencing Club are finishing up the season on the top of their form, and have won 60 per cent. of their matches.

On Saturday, March 5th, the Hospital were at home to Westminster School, and avenged a defeat earlier in the season. The Hospital were not at full strength, and Hudson-Evans, Lane-Roberts and Hacon fought all three weapons.

Hacon had his most successful match this season, winning seven, drawing one and losing one. Lane-Roberts was undefeated at sabre.

The fencing was very close, and when FitzHugh and Hudson-Evans faced each other for the last fight with the sabre, the Hospital had to win that fight for the match. The fight went to the last hit.

Result.—Guy's, 14 wins, 1 drawn; Westminster, 12 wins, 1 drawn.

Hospital Information, etc.

Pass List

ROYAL COLLEGE OF SURGEONS.
F.R.C.S.
FINAL EXAMINATION.
March, 1938.

J. H. Mayer
J. F. Shepherd
I. E. Zieve

Papers by Guy's Men

G. T. Mullaly. The post-operative treatment of the acute abdomen. *Clin. Jour.*, 1938, lxvii, 96.

E. P. Poulton. Treatment of exophthalmic goitre by deep X-rays. *Proc. Roy. Soc. Med.*, 1938, xxxi, 371 (Sec. Therap. Pharmacol.).

N. M. Jacoby. Two cases of inhaled foreign body. *Ibid.*, 304 (Clin. Sect.).

Richard W. B. Ellis. (1) Congenital palate paralysis: ? Nuclear agenesis. (2) Hilar tuberculosis causing pulmonary collapse in an infant. *Ibid.*, 306.

Louis Forman. (1) Acne necrotica. (2) Poikilodermia ? chronic atrophic dermatitis: Case for diagnosis. *Ibid.*, 351 (Sect. Dermat.).

T. Rowland Hill. (1) Essential Hypertension treated by division of the splanchnic nerves. (2) Pseudopapillœdema. *Ibid.*, 293, 294 (Sect. Neurol.).

C. Worster-Drought and Another. Cerebroetinal degeneration of late infantile type. *Ibid.*, 297 (Sect. Neurol.).

Ibid. Combined degeneration of the cord with polycythæmia. *Ibid.*, 298.

Guy's Hospital Reports.
January, 1938, No. 1, Vol. lxxxviii (Vol. xviii, Ser. 4).
Contents.

R. S. Bruce Pearson and S. De Navasquez: Syphilis of the lung. Pp. 1-21.

A. S. Bookless: Uræmia after hæmorrhage. Pp. 22-33.

G. C. Kennedy, D. C. Lewin and H. F. Lunn: Investigation into the Metabolism of Cystine—I. Pp. 34-46.

D. P. King: Culture for tubercle bacilli. Pp. 47-53.

F. M. Goldner and W. N. Mann: The statistical error of the differential white count. Pp. 54-65.

S. S. Suzman: A simple apparatus for inhalation therapy. Pp. 66-73.

P. J. Briggs: Pneumoperitoneum. Pp. 74-81.

R. C. Brock: A case of hydatid cyst of the lung—successful removal. Pp. 82-91.

H. J. B. Atkins: Observations on post-operative thrombosis and pulmonary embolism. Pp. 92-116.

Two cases of Graves's disease with muscular atrophy: (1) H. J. S. Starling—Graves's disease with muscular atrophy and ocular paresis cured by thyroidectomy. Pp. 117-120.

(2) C. S. Darke—Graves's disease with muscular atrophy cured by thyroidectomy. Pp. 121-124.

W. Russell Brain: Commentary. Pp. 125-128.

Marriage

MOORE—SYFRET.—On Saturday, March 26th, 1938, at St. Thomas's Church, Rondebosch, Cape, South Africa, Helen Anna Syfret and James Russell Atkinson Moore.

Appointments

G. C. Sawyer, M.B., F.R.C.S. (Eng.), Surgical Registrar to Charing Cross Hospital, W.C.2.

Dr. A. S. Erulkar, of Bombay, has been elected Vice-President of the Medical Council of India.

H. L. Peregrine, M.B., B.S., M.R.C.S., L.R.C.P. Squadron Medical Officer, 1st Cruiser Squadron, Mediterranean Fleet.

Changes of Address

Surgeon-Commander H. L. Peregrine, M.B., B.S., M.R.C.S., L.R.C.P., Royal Navy, H.M.S. *London*, c/o G.P.O., London.

F. G. Lloyd, F.R.C.S., 149, Ashley Gardens, Westminster, S.W.1. *Victoria* 5342.

Death

CLOGG.—On March 17th, 1938, suddenly, at Nuffield House, Guy's Hospital, Arthur Henry Clogg, L.D.S., R.C.S. (Eng.), of Rockmount, 128, Church Road, Upper Norwood, and 14, Harley Street, W.1.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — *9th April* 1938 — *Number* 1297

PASSIM

ONE of the many wonders of modern civilisation is the apparent ease with which the least intelligent of the public is able by recourse to newspapers and periodicals to diagnose and treat practically any symptom from which he might suffer. One cannot help but envy and admire the supreme confidence of a manufacturer of patent medicines who may, without even a glance at the sufferer, explain the exact cause of his pain or disability, and not only diagnose but point out the inevitable and infallible remedy.

When we ponder on the intricacies of our own methods of diagnosis, and upon the travail and expense with which we have earned the right to bring these methods into use, we are bound to marvel even more at these staggering monsters with their occult powers and pin-point precision. Their tabulation of disease, their carefully worded warnings, the beautiful anatomical diagrams speak of an orderly mind, the poise with which they discuss and explain the most difficult problems without loss of dignity would seem to show us how inadequate we are in our attempts to help the public. But we would ask you not to accept these phenomenal powers without at least a moment's clear thought, for we believe that there is an explanation and that these laymen do not always diagnose correctly and that their particular therapy is not uniformly successful in dispelling the disease. In fact, we have reason to think that this widespread advertisement is not, as would appear at first glance, absolutely meritorious.

The truth will emerge if consideration is given to the problem. Here we have a group of gentlemen who are able not only to predict the region of the body from which the pain emanates, but the exact organ, and then, untired by this mental effort, they will without any study of that organ, discourse on its normal and abnormal behaviour and, finishing strongly and without the bat of an eyelid, will guarantee to treat and cure that abnormality. How are they able to do this? We believe that they cannot do it, that their diagnoses are insufficient and inaccurate, and their research experiments such as the effect of the gastric secretions upon articles of household furniture are not properly controlled. In fact, we are led to the conclusion that those Harley Street rackets described in Dr. Cronin's book would pale into insignificance if compared with this contemptible fooling with the health of the nation.

It is readily credible that a weary public suffering real or imaginary agonies after its hard work would resort to the simple speedy cure offered to it on every page of the daily papers, but that manufacturers should be allowed to make vast fortunes and endanger the very lives of the community in so doing is scarcely to be believed until it is remembered the numbers of these advertisements there are and what enormous sums of money change hands as a result of them; and then we realise how difficult it would be to curtail the activities of these vested interests. It is strange, however, that the Government will start a campaign especially designed to make and keep us fit and allow this peril to continue unchecked, except to make reasonably certain that we are not actually poisoned by these elixirs.

It is time that the public had snatched from it this futile hope in cure from twopennyworth of inactive powder sold at five shillings; it is time they gave up their daily study of their body in disease and were allowed to forget the thousand and one pathologies lying in wait for them. The neurotic is far too easy a prey to the cunning advertiser, and the subject of a carcinoma of the stomach is almost as simple a sport for the frank

winning smile of Mr. " After Use." It is surely more reasonable that everyone should take his troubles to a doctor whose profession it is to elucidate symptoms and to decide quickly whether or no the patient is suffering from a dangerous disease. It is folly to allow the wholesale advertisement of placebo drugs whose insidious danger lies not in toxicity but in their property of lulling the patient into a sense of false security. The disgraceful combination of profiteering and toying with the public health ought to be controlled by the Government and form an important part of the National Fitness Campaign. No amount of parallel bars and knees-bending, nor, for that matter, a surfeit of good food, will cure the peptic ulcer which is at the mercy of a patent stomach powder.

Public health depends upon the provision of better general conditions, a sound knowledge of simple hygiene, and a close co-operation with the general practitioner. Advertised drugs play no part in this simple scheme, and may be a potent cause in undermining the good influence of early medical opinion.

If the sale of proprietary medicines is to continue without any restraint exercised by the Government upon it, let us at least have a law such as is in force in France whereby every patented medicine must be contained in a receptacle which has marked upon it the exact chemical formula of the constituent drugs, and the proportion in which they exist in the mixture.

We would end by strongly advising any of our readers who are candidates for any of the Final Examination subjects and who wish to revise their " signs and symptoms " to pick up a daily paper and make a list of those organic diseases whose symptomology he will find so ably described. He will benefit also by comparing his proposed treatment of any one of them with that advised by the drug-pluggers.

▭

We are informed that two performances of " The Shining Hour " by the Wimps Amateur Dramatic Society will take place on April 12th and 13th at the Rudolf Steiner Hall (three minutes from the Baker Street Station), and that the proceeds will be given to the Hospital. Tickets (10*s.* 6*d.*, 7*s.* 6*d.*, 5*s.*9*d.*, 3*s.* 6*d.* and 2*s.* 6*d.*) may be obtained from the Appeal Secretary or from Miss Mollison, 23, Devonshire Place, W.1.; Tel., Welbeck 1889.

Miss Mollison has been largely instrumental in arranging that Guy's should benefit by these performances, and we hope that all who can will take tickets.

▭

The East has been productive of several items of news for this issue. Apart from Mr. Hankey's article, which we publish elsewhere, we hear also of a Guy's Dinner held in Lahore recently, the menu of which we publish below :—

" Maggi " Soup.
" Whit(e)bread " Rolls.

" Salmon (gut) " Rolls.

" Wudy " Duck with Packing.
" Bright " Sauce.
" Pott's " tatoes.
" Cornelius " Peas.

Orange " Biffs."

" Victoria " Babies.

We also learn with pleasure that an old Guy's man, I. Bakhsh, was appointed some time ago to the post of Professor of Pharmacology and Therapeutics in the Punjab University and Physician to the C. P. D. Mayo Hospital.

▭

For the particular benefit of our dental readers we reproduce herewith a faithful copy of an answer given by a dental student (not Guy's, we are sure) to the question, " What do you understand by ' Allergy ' ? "—

" *Allergy*.—This is the phenomenon that if a person is infected with a disease, he cannot be reinfected with the same disease. This is useful in the case of a disease like Syphilis, in which it is very hard to find out whether a person is free from the disease, and it is demonstrated easily. The person is reinfected with the Spirochæta, and if a primary lesion appears the person was free from the disease."

▭

Everybody at the moment is talking A.R.P., and it is bidding fair to take its place with Yo-Yo, doodles and the like as a " craze of the year." We, too, have had our visit from the gas-mask man for our first fitting, and received cold comfort from the assurance that while our masks would protect us from the more prosaic gases of twenty years ago, the modern " vapours " would seep into our systems by almost every route except the respiratory. After we had been fitted, the question of the baby, the Siamese cat and the dachshund arose, the nationality of this last causing some discussion. It appeared that no masks were made for our pets, but arrangements had been made to collect them in some sort of communal van and remove them to healthier surroundings. We shuddered to think of the fate of the dachshund at the paws of the fox terriers. Like our correspondents Casabianca, Grace Darling and Philophonus, while continuing to treat the matter with a certain levity we cannot, we fear, disguise an underlying anxiety

for our own and, we are not ashamed to add, others' safety in the event of an aerial visitation.

In the meantime what of the Hospital and all who dwell within it? Patients, nurses, students and, of course, Matron's dogs. And what of us? We see no good reason like our pseudonymous correspondents to make invidious distinctions. Fair and fair alike wherever possible. As it is there are some unfair handicaps. The patients on the second floor of Hunt's House should not have the monopoly of the oxygen tents as "funk holes." Why should they breathe the purest air of Egypt while we cough and splutter on cordite fumes. The Superintendent has a now famous cellar all for himself; what of the rest of us? We fear that the arrival of any bomb within a wide radius would solve all too easily the proposed demolition of the Guy's House and Quadrangle; however—happy thought!—it might pave the way to a new College.

▭

WE congratulate the following upon obtaining Dental House appointments :—

House Surgeons—

Mr. P. Borghys.
Mr. B. F. Vellander.
Mr. A. E. Parrott.
Mr. J. B. Hardie.

Children's Department—

Mr. R. D. Ogston.
Mr. E. K. Breakspear.

Prosthetics Department—

Mr. C. F. H. Bulow.

Assistant House Surgeons—

Mr. R. G. Bird.
Mr. K. P. Liddelow.
Mr. L. J. Price.
Mr. M. Malleson.

We would also congratulate the following upon their appointments as Assistant House Physicians :—

Mr. R. D. Blachford.
Mr. H. Stott.
Mr. A. C. Greene.
Mr. A. J. Walker.
Mr. S. Green.
Mr. H. B. O. Cardew.

▭

WE much regret that, owing to a printing error, in our last issue, line 5 on page 111 of Mr. Lambrinudi's article was transposed to line 8. To him and to our readers we offer our apologies.

▭

WITHOUT Comment.—From an evening newspaper :—

O. Rutlishians	31	Bk of England	6
Old Paulines	264	Guy's Hospital	5
O Paulines A	27	Guy's Hosp A	3
O Whitgiftians	21	O Stortfordians	0
O Whitgftians A	8	East Grinstead	6
Rosslyn Park A	18	O. Millhillians A	0
Sale	16	Hoodinn's	

Miss E. M. Neeld—An Appreciation

AFTER many years' service at Guy's Miss Neeld, Secretary to the Superintendent, retired at the end of March.

Miss Neeld first came to the Bacteriological Department in 1907 and worked with Dr. Eyre, and was transferred to the Superintendent's Office in 1912. She also acted as Photographer to the Hospital until 1916, when she left the Hospital's service.

She returned to the Superintendent's Office in 1919, and towards the end of 1921 was asked to survey the question of contributions from Approved Societies on behalf of their members who were in-patients, and as a result of this preliminary work she was appointed the first In-Patient Inquiry Officer in 1922. In 1923 Miss Neeld added to her Hospital duties by becoming Secretary to the Salomons Infant Welfare Centre. Towards the end of 1931 it was decided to assess all in-patients on the lines adopted by the L.C.C. for patients in their hospitals, and to invite patients to contribute the amount of their assessment to the Hospital, and in 1932 Miss Neeld was appointed to start this work, her ready tact and kindly interest making her an ideal inquiry officer. A few months later, on the retirement of the late Miss Huggett, she was appointed to her position as secretary to the Superintendent.

Miss Neeld is still an enthusiastic photographer, and enlargements of her photogrpahs are much prized by those fortunate enough to possess them.

As Secretary to the Superintendent Miss Neeld became Head of the Female Administrative Staff, and the zeal with which she has worked for the Hospital and for the Administrative Staff has endeared her to us all, and her retirement comes as a personal loss to many, particularly those who have worked immediately under her. The Hospital is losing a friend and a very loyal servant.

The good wishes of those at Guy's will go with Miss Neeld in her retirement, and we hope that she will bear with her many happy memories.

H. J. B.
M. M. W.

A Case of Ruptured Hydronephrosis

By Paul Davies, Esq., M.B., B.S.

THE following case has been thought to merit description, illustrating, as it does, certain interesting points in the diagnosis of intra-abdominal lesions resulting from trauma.

Walter B. Aged 51 years. Admitted to Astley Cooper Ward on January 27th, 1938.

About 1 p.m. on the day of admission the patient was going down a narrow staircase with his hands supporting a nine-gallon barrel of beer against the steps above him and rolling the barrel down against the staircase as he descended.

When about four steps from the bottom he slipped backwards off the staircase on to the ground at the bottom, but landed on his feet. He let go of the barrel, which rolled down the staircase, bounced off a step, hit him full in the epigastrium and rebounded off his abdomen on to the floor. The force of the blow caused him to stagger backwards, but was not sufficient to knock him off his feet.

He was doubled up with the pain, which was extremely severe, and, after a short time spent lying down at his place of employment, he was brought up to Guy's in a private car.

Here he was put on a couch and his pulse was taken quarter-hourly. During the hour and a half he was in the Surgery his pulse varied between 80 and 90. He seemed rather drowsy and complained of diffuse epigastric pain, which was not, however, really severe.

On examination he was seen to be a large fat man of plethoric appearance. There were no abnormal signs in the lungs, but there was tenderness over the anterior ends of the lower ribs of both sides.

There was a scar of a previous operation for ventral hernia, together with a small incisional hernia midway between the umbilicus and xiphistenum. There was diffuse tenderness on both sides of the epigastrium and some rigidity of the upper halves of both rectus abdominis muscles.

Patient did not look for a moment as if he had suffered any serious injury, but the presence of rigidity was considered suspicious and he was admitted.

He reached the ward at 3.45 p.m.; his pulse was then 76. An X-ray of the ribs was negative. Patient's pulse then began to rise slowly but steadily, being 96 beats per minute at 6.15 p.m., 100 at 8 p.m., and 108 at 8.15 p.m.

During this time he went off to sleep several times, passed two normal specimens of urine, and in himself showed no deterioration in condition. He was not thirsty or restless, and his mucous membranes and cheeks continued to present their normal bright pink colour.

He was examined again at 8.15 p.m., and the physical signs now indicated that some serious intra-abdominal catastrophe had occurred. Pulse was 108. There were no signs in the chest, but on abdominal examination, rigidity of the right upper rectus was now board-like and much more definite than that on the left side. There was also tenderness and rigidity of the muscles of the right loin and stony dullness was found extending out into the right flank. This dullness did not shift when the patient was turned over on to his right side. The bladder was distended in spite of the fact that the patient had passed urine twice.

Another sign elicited was the fact that on reducing the incisional hernia a feeling was obtained as though some rough substance of firm consistency was being pushed through the hernial aperture. This sign is given sometimes on reducing omentum and sometimes when a hernial sac contains blood. Laparotomy was thus obviously indicated, it being considered probable that the underlying lesion was a rupture of the liver.

A paramedian incision was thus employed. Only a few ounces of slightly blood-stained fluid were found in the peritoneal cavity, but above and lateral to the hepatic flexure of the colon was a large tense retroperitoneal swelling.

This was incised, and out gushed about two pints of fluid heavily stained with blood, together with a small amount of blood-cot.

To the operator's surprise his hand then plunged into a large smooth-walled cavity, which closer inspection revealed to be a large hydronephrosis with a small amount of renal tissue around its periphery. The bladder was catheterised at the conclusion of the operation, and as the urine contained no blood it was presumed that there waa no patency between kidney and bladder.

The kidney on the left side was palpated and felt normal, and accordingly the ruptured hydronephrosis was removed after a careful dissection of the inferior vena cava, the renal artery and vein.

On the day after operation patient showed no anæmia, but his blood urea was found to be 132 mgms. per 100 c.c. This, however, rapidly fell to normal, and daily estimations of urinary output and specific gravity showed renal function to be quite adequate.

In retrospect the following important features are to be noted. Firstly, the case illustrates how slow may be the onset of symptoms pointing to a serious injury to the viscera and how good the general appearance of the patient may be in spite of the fact that such has occurred.

The value of the pulse chart in such cases is adequately illustrated.

With regard to the diagnosis it may be said that dullness in the flank which does not shift is characteristic of a retroperitoneal tumour or effusion. In this case, however, the absence of blood in the urine was taken to rule out the likelihood of ruptured kidney. The fact that the dullness did not shift was thought to be due to the blood having clotted in this area and the sign obtained on reducing the hernia was taken as additional evidence of the presence of hæmoperitoneum.

The maintenance of good general condition was rightly held to contraindicate the rupture of stomach or of duodenum, and to be in favour of rupture of the liver.

The surprising feature of the case is the previous absence of any signs or symptoms suggestive of the presence of a hydronephrosis. After operation no evidence was found of hyperpiesia, impaired renal function, or of prostatic hypertrophy.

My thanks are due to Mr. Slesinger and Mr. Eckhoff for permission to publish this case.

In China

Second Special Dispatch from Donald Hankey, Esq.

BY this time you will probably have recovered from the last dispatch I sent to you, so I thought I would send you another, an account of things that have happened out here recently. I had intended to continue from where I left off my last account, but I have been so extremely busy that I have just not had a minute to compose a good account. This, therefore, deals mainly with an air raid that we had here on February 14th, and was a red-letter day in thousands of people's lives, in more senses than one.

This town of about 100,000 people is a very important place strategically, as it is at the junction of the LungHai and Peking-Hankow railways which supply two important fronts on which the Chinese are fighting.

The town itself lies twenty miles south of the Yellow River, of which at the time of writing the Japanese profess to have reached the northern bank. It is one of the most important towns in Honan province, being a huge distributing centre for goods that are brought in from a very wide field, mainly cotton, wheat, and vegetables; in fact the surrounding district supplies towns so far away as Hankow, a distance of 300 miles.

The hospital where we are is between the railway and the old city whose mud walls, originally faced by brick, are not less than 70 feet high, the top being sufficiently wide for two waggons to pass each other. As the Chinese have several guns on this wall our position between them and the railway, two military objectives, is not a very good one.

It proved so on February 14th. So many air-raid alarms had been sounded for the last three months that no one took a great deal of notice until the unmistakable drone of many machines was heard over the city followed soon by loud, but what seemed like distant, explosions. It was then that everyone in the Compound realised that this was the real thing. The number of machines that visited us is estimated between ten and fifteen, but accuracy is difficult as they circled, dropped bombs and returned again and again. Huge explosions seemed to fill the air and the anti-aircraft on the city walls and all round the new city started to blaze away, machine guns shot forth an ineffective stream of lead against the invaders who were flying much too high for any but a lucky shot to hit them.

Then when we thought they had finished their deadly work they returned to harass us once more. This time seven loud explosions followed in quick succession, the last three seemed to rock our buildings. The bombs came down with a loathesome whine, and as the explosions followed the windows of the wards were broken and the air filled with flying fragments of glass and bomb and the rooms were full of dust. The noise of the bombs exploding is just like huge doors slamming, and seems to hit one right in the back every time. We managed to get all those patients who were up at the time into bed, and those who wanted to gaze out of the windows under the bed-clothes, but not before three were hit by flying fragments, one seriously. And then the planes departed giving us a minute to look round to see what damage had been done. In the building in which I happened to be at the time 50 per cent. of the windows were broken, the floors littered with glass, and a large quantity of shrapnel which was quickly seized upon as souvenirs as this is con-

sidered to have some peculiar charm in keeping further planes off! The piece which I have is the one that hit a patient in the left orbit; he actually had his head under the bed-clothes at the time, but it came through a window, tore into the sheets and shattered the lateral portion of his orbital cavity. These fragments travel at terrific speed and the one that I picked up was still almost too hot to hold in the hand, after several minutes.

We then went outside to find how other people in buildings apart from us had fared; some had had a remarkable escape. The superintendent of this hospital, an American, was standing with several others of his staff at the corner of one of his buildings watching the planes come over when he saw one almost immediately overhead and casually remarked that it might be safer to get inside; sixty seconds later the whine of a bomb, followed by an ear-splitting crash, told him that it had exploded in the vicinity (when measured it was found to be less than ten yards from where he had been standing). We reckon the missile was only a ten-pounder, otherwise it would have caved in the building.

Later, on touring the compound we found that no less than three bombs and one dud had fallen in its precincts; actually we had come in for the tail end of nine which had been dropped in a row. It is a mystery how this line could have been drawn so accurately between our operating block, the new block and a huge mat shed housing over 150 sick refugees. One bomb exploded with five yards of a specially dug trench in which many of the staff were sheltering, another hit the top of a tree and exploded there, not injuring two coolies standing below it. All this is gospel truth, but I had better not go on as you may feel that I am pulling your leg.

Unfortunately, a great number of people were less fortunate than ourselves, and in twenty minutes the Out-Patients' Department was filled with wounded people with every describable type of injury. There they lay on the floors and benches and in every place where a head could be laid. All around was a groaning, bleeding mass—some dying, others writhing in agony, some bravely waiting in silence for attention, and as fast as one received temporary treatment so others poured in. A special squad of stretcher-bearers had been trained some months before, but at the critical moment they did not show up so a dozen or more coolies were sent out to fetch the wounded who arrived in all sorts of ways, some in rickshaws, some carried on doors, some leaning on another's arm, others with no help at all.

The operating theatre worked overtime that day, treating the cases which could not wait owing to their seriousness, and patching up those which could until a time when a greater degree of care could be given. Most of the wounded came in covered with dust, so that the grime and gravel literally fell out of their clothes as they were taken off. Some had been crushed by the fall of flimsy houses, others hit by flying shrapnel travelling at enormous speed, others burned, some escaping miraculously with surface wounds. Like a nightmare it was, with all the most hideous tortures being inflicted on the human body. An old woman with both legs just dangling from a few muscles still attached to her thighs, the whole wound filled with a fine sand from a nearby explosion; another a boy of fifteen with the three middle fingers of a hand just wrenched away and multiple wounds of both legs, and then a man, a huge workman, kneeling on the floor of the operating room with his face near a bowl of warm water trying to bathe a face that was so swollen and cut that it was scarcely recognisable. He seemed to have been hit by multiple small fragments, and after, he lay on the operating table and, without a sound, had a lip or two stitched up without an anæsthetic.

Fifty-six in-patients we took in that day, as well as treating no less than one hundred and seventy lighter cases. Every bed was filled (I was just going to say to overflowing); some of the older cases which were recovering were put on the floors and their beds given to others. There are four further hospitals here of smaller dimensions, but they all took their quota of patients, so that it is fairly safe to say that the casualties were very high—some put them as high as one thousand, others as low as six hundred. I favour the former, with half that number as dead.

There was once a huge block of modern buildings situated near the station, which the Japanese were trying to bomb. One wall is the only remaining one of a four-story hotel. At the time of the raid there were one hundred and eighty people in it, and almost all were buried or burned alive when it crashed and caught on fire. As there are no special rescue squads one has to dig out one's own relatives—two men were found after three days uninjured but hungry! The damage to the city was very great, many of the bombs falling in the business part of the city, which was densely populated. I purposely say "was," because more than half the town-folk have now left for elsewhere, and the city at mid-day is deserted.

Estimates of the bombs dropped naturally varies, but fifty is a very moderate estimate. Some must have been really large, as huge buildings have been destroyed. Unfortunately, many of the humble folk's dwellings needed very little to

crumple them, which accounts for the very high casualty list.

The raid shook the morale of the town-folk badly, and from eight in the morning to six at night it is impossible to get anything in the town. The large proportion of the populace trek into the country until the evening, which is the logical thing to do. Those that remain rush into the country at the first blast of the warning, of which there are sometimes as many as four a day. It really is pitiable: old and young rush along in a cloud of dust, hustling and pushing in a wild endeavour to reach the open country first, where comparative safety lies; but to see the throng of rushing people mingled with rickshaws, barrows and donkeys has to be seen to be believed.

In conclusion thousands of pamphlets were dropped on February 27th by a Japanese plane that circled the city, but was driven off by gunfire; many of the notes were in English, the majority in Chinese. They need a word of explanation, I feel. The railway runs near some British and Italian property, and the Japanese claim that the Chinese run their ammunition trains near this property as a defence against attack, thinking the Japanese will not dare to bomb them. So far we have not been visited again, but it is now only the third of the month, and two days have been so windy that the air has been filled with a fine dust that covers the parched countryside, and makes visibility almost nil

It all seems so futile, that while we are struggling to mend the wounded, others are planning to destroy more.

Well, thank you for being so patient. Please rearrange any of this article as you may think fit—it is so hurriedly written.

Assessing the Importance of Dental Sepsis in Systemic Disease

Newland-Pedley Prize Thesis, 1937.

Read to the Dental Society on Thursday, 2nd December, 1937, by Paul Borghys, Esq.

INTRODUCTION

Historical

MR. CHAIRMAN and GENTLEMEN,—No work on dental sepsis is complete without mentioning several men who must not be forgotten for their work on the relationship of dental sepsis to general disease, and also for their consideration of focal infection elsewhere. Focal infection has been described as "a circumscribed area of tissue infected with pathogenic micro-organisms." Dental sepsis can act as a focal infection.

Dental sepsis as a possible cause of, or as a contributory factor in, general disease has been mentioned occasionally by early writers. Benjamin Rush, in 1818, pointed out the "connection between the extraction of decayed and diseased teeth and the cure of general disease," but it was not until William Hunter, who in 1898, and later in 1910, stressed the importance of dental infection in systemic disease, that the concept of focal infection was accepted in clinical medicine.

Frank Billings, in 1916, emphasized the importance of chronic localised infections in the ætiology of general disease, and Edward C. Rosenow demonstrated that bacteria from these foci were very sensitive to oxygen tension and that the organisms varied greatly in their affinity for different tissues of the body.

Now the bibliography has grown enormously, but mention must be made of those who have contributed outstanding advances and whose work will be considered in more detail. They are: Weston Price, Goadby, Bulleid, Haden, D. Thomson and R. Thomson, and Fish and Maclean.

TYPES OF DENTAL SEPSIS, THEIR RELATIVE IMPORTANCE AND THE VARIOUS WAYS IN WHICH SYSTEMIC DISEASE MAY BE PRODUCED BY THEM

Dental sepsis has been divided into "open sepsis" and "closed sepsis." In "open sepsis" there is free drainage into the mouth from the infected areas. In "closed sepsis" there is drainage into the bone, the blood stream and the lymph channels.

All gum infections belong to the "open" group. To the "closed" group belongs the rarefying and condensing osteitis associated with the apices of teeth. A. T. Pitts points out that toxins from a deep pyorrhœa pocket may be absorbed into the blood stream, and that a superficially "open" condition may, in fact, act as a "closed" infection.

It is generally agreed that "closed" dental sepsis does more harm to the constitution, and is more often the cause of systemic disease than "open" dental sepsis.

Weston Price describes two types of infection that occur in and around infected teeth :—

1. Rarefaction (apical granuloma).
2. Condensation of bone (condensing osteitis).

Bulleid, although he says it is difficult to place apical osteitis under any well-defined headings, classified them as follows :—

1. The rarefied area—diffuse osteitis.
2. The chronic abscess—with or without a sinus.
3. The granuloma—with or without epithelial cell elements.
4. The dental cyst.

Of these he considers the granuloma the least innocuous, and that the rarefied area and chronic abscess are the most pernicious. His reason being that the granuloma is self-limiting and denotes a tissue reaction warding off the infection, whereas the others have no such limitation.

In his experiments, he found that granulomata were formed on teeth that were poorly root-filled or those not filled at all, but he hesitates to say that root treatment should not be undertaken.

Bulleid states that all dead teeth are infected, and that they may be infected in one of the following ways :—

1. Passage of bacteria and toxins through death of pulp by caries.
2. Spread from pyorrhœa pockets by lymph and blood vessels of the periodontal membrane.
3. By lymph and blood stream from more remote parts.

According to Haden the types of chronic dental infection that may be associated with systemic disease are :—

1. Chronic periapical infection of pulpless teeth.
2. Pyorrhœa alveolaris and pockets around partially erupted teeth and under reconstructive appliances.
3. Chronic pulp infection in vital teeth.
4. Residual alveolar infection after tooth extraction.

He considers chronic periapical infection to be by far the most common dental infection responsible for systemic disease, and pyorrhœa to be much less important. Chronic pulp infections are more frequently the cause of systemic disease than is usually suspected, and he emphasizes the importance of completely removing the area of infection in tooth extraction.

Bulleid mentions that he has grown streptococci of the viridans type from the absorbed apices of vital teeth, and points out that the presence of such teeth in the mouth are a danger often overlooked, since there is no clinical abnormality.

Stirling Hewitt published an interesting paper on the decomposition products of foodstuffs that may be held in pockets and between the teeth. He points out that such conditions may exist without infection and pus, and that the decomposition products are toxic and may be absorbed into the body to cause systemic disease.

Systemic disease may be caused by direct spread to adjacent structures, or by metastasis to distant parts producing secondary foci of infection. Toxins from either the primary or secondary foci may give rise to symptoms in other organs of the body. It is important, therefore, in treating cases to eliminate the secondary foci as well as the primary focus. Sometimes allergy and anaphylactic sensitization develop from a focus of infection. A focus of infection may form the nidus for the activation of another infective agent, which, in its turn, causes disease.

So far, we have dealt with blood and lymph-borne infection. It must be remembered that toxins from " open " dental sepsis may give rise to infections in the respiratory and alimentary tracts by direct contact with infected material. Secondary foci may in this way be established which might cause local changes at the site of lodgment, and also blood and lymph-borne infections elsewhere.

EVIDENCE THAT DENTAL SEPSIS CAN CAUSE SYSTEMIC DISEASE, AND THE TYPES OF DISEASE USUALLY ASSOCIATED WITH DENTAL SEPSIS

There are in the literature many reports of cases that have recovered completely after treatment of dental foci of infection, so that we may say that it is now firmly established that dental sepsis can and does cause systemic disease.

There are also reports of cases where patients have had all their teeth removed with little or no alleviation of the systemic symptoms. It is possible that, in these cases, the dental disease was unrelated and not causative of the disease, or that secondary foci of infection had commenced in distant parts of the body and were either causing or continuing the disease. In those cases which show slight improvement on treatment of the primary focus, it is probable the disease is due at first to the primary focus, and, secondly, to less severe secondary foci and is continued by them.

This shows how important it is to examine all possible foci of infection and to eliminate all other foci before the teeth are considered wholly responsible. Further, if secondary foci are established, no degree of change in the general condition may be expected until they too are treated.

According to Goadby there are several well-defined diseases that are usually associated with dental sepsis. They may be included under the following headings : anæmia, arthritis, rheumatism, gastro-intestinal disorders, ill-defined

toxæmia and chronic bacteræmias, heart infections, some varieties of neuritis, and neurasthenia. These are all diseases of focal origin, and some are probably caused by open dental sepsis.

F. St. J. Steadman, in a study of carcinoma of the alimentary tract, noted the high percentage of patients having a coincident dental sepsis. This does not explain, however, as pointed out by A. T. Pitts, why carcinoma of the tongue is more common in the male than in the female, for dental sepsis is equally common to both sexes.

Haden conducted a series of experiments using cultures from chronic dental foci, and injected them into rabbits. He was able to show, that in a large majority of cases the lesion from which the patient was suffering was reproduced in the animal.

Haden classifies the types of systemic disease of dental origin under the following headings: arthritis, diseases of the kidney, heart and vascular disease, diseases of the alimentary tract, diseases of the eye, anæmia, nervous and mental diseases.

It has been shown by many authorities that a streptococcus is usually isolated in dental sepsis. Further, it has been shown that a streptococcus plays a large part in systemic diseases of a type usually associated with dental sepsis. Therefore, the relationship seems plausible, since the mouth affords very convenient portals of entry for the establishment of streptococcal infections.

It is not intended to go into the discussion of the many separate diseases that have been attributed to dental sepsis. Lists of the main types of disease usually associated with it are given. If it be remembered that dental sepsis is always a possibility in general disease, it will be better to consider the dental sepsis in more detail.

THE ASSESSMENT OF DENTAL SEPSIS

In assessing the importance of dental sepsis it is possible to place a man in one of six groups :—

1. A man with no sign of dental sepsis and who appears to be in perfect health.
2. A man with no sign of dental sepsis and who is suffering from a systemic disease attributed to focal infection.
3. A man with dental sepsis and who appears to be in perfect health.
4. A man with dental sepsis which is unrelated to the systemic disease.
5. A man with dental sepsis which is aggravating but not causing the systemic disease.
6. A man with dental sepsis which is directly responsible for the systemic disease.

The difficulty arises as to in which group the man is to be placed.

The first consideration is, "Is dental sepsis present?" This entails a thorough clinical and radiographic examination. If it is possible to give him a clean report his systemic disease cannot be attributed to the teeth. On the other hand, if dental sepsis, as well as a systemic disease, is present, it is very difficult to place him in one of the remaining groups and to advise the necessary treatment.

In a patient with dental sepsis and with good health, we may safely say that the dental sepsis should be removed, as any dental sepsis is a potential source of danger. Repeated doses of toxic substances gradually undermines the constitution, and the patient may be attacked at any moment.

The main questions are: How far may our treatment be of a conservative nature? Can the gum condition be improved without removing teeth? Can the patient tolerate dead teeth in the head? To answer these is not easy, as many factors must influence our final treatment—"To extract or not to extract." We must take into consideration the age of the patient, the general health of the patient, and from that gain some estimation of his general resistance, the amount of caries, the amount of gum recession and pocketing, the number of dead teath already in the head, and, finally, how far the patient is willing to co-operate with us in whatever we advise.

In a patient with dental sepsis and a coincident systemic disease of a type usually attributed to a focal infection, we must decide whether the dental sepsis is causative or not, or whether the sepsis aggravates the condition, or prevents recovery when some form of treatment is being tried.

Many methods of examination have been suggested which may be considered under the following headings :—

1. Clinical examination.
2. Radiographic examination.
3. Examination of the blood and urine.
4. Bacteriological examination.

These examinations do not aim at incriminating the teeth, but rather to release them; other sources of infection are considered at the same time, and these finally may be found to be responsible for the systemic condition.

I.—THE CLINICAL EXAMINATION

The clinical examination is considered by many authorities to be the most important. It does not, however, tell us how far the dental sepsis is responsible for the systemic condition—it shows only the presence and degree of sepsis.

The examination is divided into two groups :—

A.—Examination of the teeth.

B.—Examination of the gums.

A.—*Examination of the Teeth*

1. Vitality tests :—
   a. Reaction to heat.
   b. Reaction to cold.
   c. Electrical stimulation.
   d. Transillumination with electric light.

Haden states that in neuritis and allied diseases special search should be made for chronic pulp infection in vital teeth, so that teeth with poor vitality reactions should be especially noted and suspected.

2. Response to percussion and pressure.
3. Degree of movement.
4. Presence or absence of pain.
5. Carious cavities.
6. Large restorations.

B.—*Examination of the Gums*

1. Presence or absence of sinuses (*i.e.*, gum-boils).
2. Presence of swelling.
3. Degree of recession of gums.
4. Depth of pockets.
5. Type and extent of calculus, and presence of ulceration.
6. Type of infection (by bacteriological methods).

With the above examination, and any history the patient can relate regarding teeth that are root-filled, or have given pain, a fair estimation of the condition of the mouth is gained.

(*To be continued.*)

Correspondence

"A.R.P."

To the Editor of the GAZETTE

SIR,—In a world that has gone mad and in a town in which there is an acute exacerbation of that madness from *dementia apræcox*, it is hard to know what is right. What the Governors have decided to do for the safety of their patients in the event of an air-raid I do not know; nor do I want to know, for I think it much better that they should not divulge their arrangements until there is a chance that these may be needed; but I can, as a result of experience, give some guidance to Casabianca and Grace Darling.

They must not expect funk-holes to be provided for them, for they and everyone else of the staff of the Hospital—working, administrative, nursing and medical—will be kept quite busy looking after the needs of the patients. They will both have the opportunity to display the heroism that tradition attributes to their namesakes; let us hope they may prove worthy of their pseudonyms. Casabianca will have to stand upon the about-to-be-burnt deck of his ward nonchalantly walking up and down and assuring his patients that they need have no fear as the enemy know exactly where the Hospital is and that, in spite of what the papers say, they never intentionally bomb hospitals. He may even add that the accuracy of their aim is astounding, and though he will not believe this at first, he will come by reiteration to do so on the fourth or fifth day; by which time the job is rather an amusing one, and he will have developed a sort of Charlie Chaplin trip that will add confirmation to his verbal statements. For the first few days he will have a heavy feeling on the top of the spine of his 7th cervical vertebra as though a hard body were just hitting it, and a sharper one in the lumber region like that of a blunt cutting instrument.

Grace Darling—and her wife, an unusual union—will have to be rolling up her sleeves in order to pull at all sorts of things in preparation for the removal of the patients in the event of that being ordered.

The most that each can expect is a gas-mask apiece. Personally, I belong to the Society that Refuses to be seen Dead or Alive in a Gas-mask—or rather I am the Society except for the Hon. President, my wife, a lady that is notoriously dilatory in the payment of subscriptions, and who has, as yet, not paid the five guineas that all honorary presidents and vice-presidents are expected to put up annually. Usually, in order to avoid secretaries dunning her in surchargeable unstamped envelopes, I pay her subscriptions myself; but on this occasion she refuses even to allow me to deduct it from the housekeeping money. I hope, however, to obtain some proselytes shortly, for mothers will be spring-cleaning, and when they put before their sons the flannel trousers in which their husbands played cricket twenty years ago and the boys say: "Mother! I wouldn't be seen dead in 'em," I am going to pounce on them and claim them as members of my Society; and the same when any woman—mother, wife or daughter—says the same of last year's spring hat. For I shall assume that they are speaking from the heart and are willing to die for decency sake.

"But what about such-and-such gas?" I hear someone say. "How would you like it if you got a dose of it?" My answer is that I should not like it at all. I should gasp and splutter and curse, and wish I had not held the views I do.

In other words, I should be a coward. I have been there before. I can assure the young couple that it is a horrid feeling being a coward. But I am prepared, if need be—and, mark you, I deny the need—to be one again in support of my views. And before the finish I think it would pass, and everything would be a glorious peace, and joy at being able to keep right on to the end.

And anyhow, why should the militarists have the monopoly of tub-thumping? There they are, at it again, calling upon the youth of the country to die for their ideals. As though we pacifists were not doing the same; only we are asking for more—we are asking for moral as well as physical courage. We know from the Great War that physical courage was common and that physical cowardice could be controlled. We know also that moral courage was rare, and that very few people could control moral cowardice.

When the air-raid is over, either the Hospital will not have been hit, when Casabianca and Grace Darling can get on with their ordinary work again, or it will have been. Then they will be busy hauling roasting corpses out of fires—an unpleasant task as I can assure them—or doing other odd jobs about the place. So they won't have any time for funk-holes before, during or after. They are much more likely to be earmarking any room where they can get something to eat, for they will be very hungry.

Yours, etc.,
PHILOPHONOS.

Guy's Hospital,
S.E.1.

*** Proofs of the above letter were sent to Casabianca and Grace Darling in order to shorten the interval before a possible reply.—[EDITOR.]

To the Editor of the GAZETTE

SIR,—The true lover of sound, we suppose, must enjoy a good air raid just as much as a good tub-thump, so we hope that Philophonos will have a nice time when the bombs burst. We are most grateful to him for his "guidance," but you know, sir, we can't help wondering whether he has considered the problem, except in the woolliest way. It is true he lays down his views with every appearance of assurance, to the extent even of seeming just a little pontifical, but we wonder how authoritative they really are. For, apart from the hard bodies and the sharp cutting instruments and the Society that Refuses to be Seen Alive in a Gas-mask, and the Hon. President's dilatoriness in paying subscriptions, and spring cleaning and old flannel trousers and last year's hats, and *dementia aprœcox* (whatever that may be) and the voices of pacifists in the wilderness, we feel that the nub of the matter lies in Philophonos's rather naive assertion: "Either the Hospital will not have been hit . . . or it will have been. Then they (*i.e.*, our noble selves dedicated to the call of duty and (Philophonos's) ideals) will be busy hauling roasting corpses out of fires."

Well, will they or will they? Apart from the question that to haul a roasting corpse from a fire might seem a misdirection of energy when there were much other pressing work to be done, the question is shall we be there to do it?

That was the point we were anxious to establish. Philophonos, in his idealistic crusade calling upon young boys and mothers to surrender themselves to him nor protect themselves from gas, seems to have lost the practical in the visionary.

Our concern is not only whether we shall die with or without a "glorious peace, and joy at being able to keep right on to the end . . ." (keep what?), but also whether the patients will die, not only the patients in the wards, but the patients from outside too, owing to the extermination of those capable of supplying the necessary professional assistance in the emergency. Come, come, come, that is the point—will there be enough people left? The only way to ensure this is to have a constructive plan for all at the Hospital, and it is for the proper formulation of this that we are anxious. Do not let us lose all sight of reason, O heroic Philophonos, in a rising tide of enthusiastic idealism and a bombast of sound; do not let us muddle along leaving the people depending not upon us but upon the odour of sanctity our corpses leave behind. Let us face the facts and have constructive thought, even though the details be not published.

Yours, etc.,
CASABIANCA.
GRACE DARLING.

Guy's Hospital, S.E.1.

Injuries to the Wrist

To the Editor of the GAZETTE

SIR,—Mr. Lambrinudi, in his excellent article on "Injuries to the Wrist" in the last issue of the *Gazette*, advocates in the treatment of Colles' fracture the inclusion of the elbow in the plaster and fixation of the wrist in full pronation. Whilst this position ensures accurate reduction, I am not certain that it overcomes the liability to recurrence of deformity which occurs in 10 to 15 per cent. of the cases. The actual loss of bone substance at the fracture which he mentions is certainly one factor in the production of this annoying complication, but in my opinion the technique of application of the plaster cast is of great importance and has considerable bearing on this point.

There is usually considerable swelling around the wrist at the time of reduction and plaster, and the bony contours, especially the marked concavity (Fig. 1, B) on the under surface of the radius,

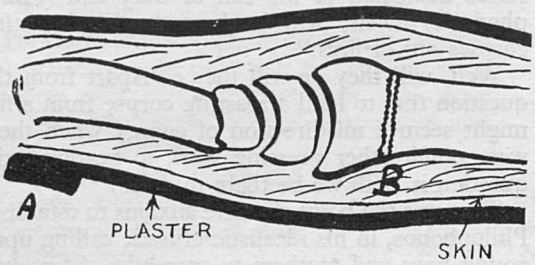


Fig. 1

are obliterated. The hand, however, is firmly fixed at A. When the swelling subsides a space is left between the plaster and skin on the anterior surface of the wrist, and the bony laminæ having softened and the hand being still fixed at A, a downward buckling at the site of fracture is liable to occur (Fig. 2), giving rise to the characteristic

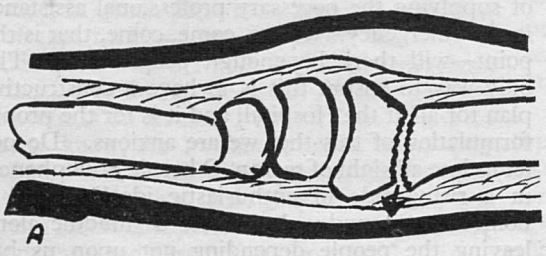


Fig. 2

deformity so frequently seen about the twelfth day. This could, I think, be prevented by carefully moulding the plaster through the swelling on to the concavity of the under-surface of the radius and also on to the dorsum of the carpus and lower fragment (Fig. 3); and the best way to do this

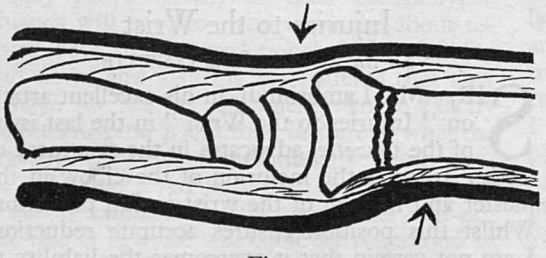


Fig. 3

effectively is to hold the wrist between the thenar eminences whilst the plaster sets, one eminence pressing into the radial concavity, the other on the dorsum.

Since paying attention to this point I have had fewer recurrences of deformity under plaster, and I have found that it is usually unnecessary to change the plaster when the swelling has subsided at the end of a fortnight.

Yours, etc.,

J. S. BATCHELOR.

4, Devonshire Place,
W.1.

South Africans Visiting London

To the Editor of the GAZETTE

SIR,—During a large part of those halcyon days spent at Guy's (or so they appear in retrospect!) I shared "digs" with one G. A. Martin. The ties formed then, one is happy to say, have endured, and this year from about the 15th of May we shall both be in or around London for some two to three months.

We hope there are some of our old comrades-in-crime with whom we have lost touch who would like to see us again. May we ask them to do so, c/o of your august self? It will be our most pleasant duty upon arrival to wait upon you at the earliest opportunity.

Yours, etc.,

ROLAND HOFMEYR.

National Mutual Building,
17, Church Square,
Cape Town.

P.S.—I was at Guy's (Dental), 1919 to 1923. G. A. Martin (Medical), 1920 to 1924.

P.P.S.—We hope to be able to give you some account of the records of many of the South Africans who were contemporaries of ours at Guy's.

Guy's Hospital Gazette
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Sport

Rugby

Guy's v. Bedford

(At Honor Oak Park on Saturday, March 12th)

THE visit of Bedford attracted an excellent attendance to Honor Oak Park, and, although they were beaten by a placed goal and 2 tries to nil, Guy's played attractive football, and were unfortunate not to score on two or three occasions.

The first team pitch was so hard that it was decided to play on the reserve ground behind the grandstand.

Guy's made several changes in their back division, as Dick, Crawford and Allen were unable to turn out, but Halamandres and Van Steytler, who returned to the side at full-back and fly-half respectively, appeared to revel on the hard going, and, together with Babrow and Kynaston, were outstanding.

Milman, the English International, stood down from the visitors' side, otherwise Bedford were at full strength.

During the first half Guy's had to face the sun, and in the early stages Bedford's forwards forced their way into the Hospital's 25, where they heeled smartly from a set scrum and A. Smyth sent D. B. Coleman away, with V. J. Lyttle, the Irish International, in support. The latter accepted a splendid pass ten yards out and raced over the line for a try, too far out for Eidsforth to convert.

Guy's made great efforts to equalise, and Van Steytler, Babrow and Douglas handled the ball magnificently, and some of their movements deserved a better fate.

Bedford relied to a large extent upon their hefty forwards, whose rushes were very difficult to check. However, the Hospital pack stuck to their task exceedingly well, and were by no means out-played. A ding-dong struggle followed, and on one occasion Morey was caught only a yard from the line and Kynaston just missed a penalty. However, Bedford recovered from these shocks and eventually carried play to the other end of the field, where Coleman made an opening for his scrum half to score the second unconverted try.

Guy's played a great game after the change of ends, but Bedford had a particularly strong defence which gave nothing away.

There was no further scoring until a quarter of an hour after the interval, and then Coleman and Kelly between them dribbled the ball over the line and Coleman touched down for a try, which Eidsforth converted.

Halamandres played a very sound game at full-back for Guy's, and his touch-finding was superb.

Team.—C. Halamandres; L. G. Morey, L. Babrow, R. U. F. Kynaston, D. M. Douglas; J. van A. Steytler, K. A. Stanyon-Jacques; M. R. Kark, E. S. Nicholson, H. H. Crabb, A. Forbes, A. Bulstrode, C. Vidot, P. D'O. Kolesar, R. O. Yerbury.

Guy's v. Old Leysians

(At Wandsworth on Saturday, March 19th)

OWING to the hardness of the ground at Honor Oak Park, Guy's transferred their game with the Old Leysians to Wandsworth, and on account of the International, the match was played in the morning.

Both sides were below full strength, and after a hard struggle Guy's succeeded in defeating the Old Boys by a placed goal and 2 tries (11 points) to a try (3 points).

The forwards had a terrific battle, and although the Old Leysians held an advantage in the set scrums, Guy's were splendid in the loose and their back division, who had an excellent understanding, carried out many passing movements at top speed.

Guy's obtained an early lead when Stanyon-Jacques broke away in his own 25, passed to Fletcher, and eventually Douglas raced over for a try near the corner flag.

Following this success Guy's played confidently, and launched attack after attack, but the Old Boys tackled magnificently and kept them at bay until just before the interval, when, following good work by Allen, Kynaston and Babrow, Fletcher picked up in the loose and ran in for a try, which Kark converted from the touch-line after no-charge had been given.

In the second half the Old Boys staged a remarkable rally, and Guy's had to defend desperately. On several occasions they came within an ace of scoring, but several good movements were spoilt by poor finishing.

Eventually Guy's answered the challenge and Allen followed up a kick ahead and scored an unconverted try.

This reverse inspired the Old Boys to greater efforts, and near the end a movement on the blind side enabled Holloway to cross in the corner, but Rogers missed the kick at goal.

Team.—J. P. Crawford; L. G. Morey, L. Babrow, R. U. F. Kynaston, D. M. Douglas; R. D. Allen, K. A. Stanyon-Jacques; M. R. Kark, R. M. Sharpe, H. H. Crabb, A. Bulstrode, A. Forbes, C. S. Darke, P. Fletcher, R. O. Yerbury.

Inter-Hospitals Cup Final
Guy's v. St. Mary's

(At Richmond on Wednesday, March 23rd)

FOR the fifth successive year St. Mary's won the Hospitals' Cup when they defeated Guy's in the Final by 3 placed goals and a try (18 points) to nil.

The match attracted one of the best attendances of the season, and the supporters of Guy's turned up in force hoping to see a close game.

When it was announced that McRae, Kemp and Talbot were unable to turn out for St. Mary's on account of injuries, one felt that Guy's had a reasonable chance of success, but after a magnificent first half, when they held their opponents to a try, they fell away after St. Mary's had registered their second score, and from then onwards the holders were the masters of the situation.

Guy's made two important changes in the pack, Kark and Darke being preferred to Sechiari and Vidot. In the back division Kynaston occupied the left wing, and Crawford and Allen played at full-back and fly-half respectively.

Facing the sun and a slight breeze, Guy's began cautiously, and, following a few minutes of midfield play, they nearly took the lead when a long punt ahead was misfielded by Walker, the St. Mary's full-back, in his own 25, but Morey, who raced up at full speed, knocked on just as he was about to cross the line.

St. Mary's, profiting by this let-off, promptly transferred play to the other end of the field, and Fell came within an ace of scoring when he was bowled into touch by Crawford.

Then came two penalty kicks at goal—a fine effort by Kark from long range and another by Craddock from thirty yards out, which went wide.

The light ball appeared to bother both sets of backs, and knocks-on were fairly frequent. However, both Walker and Crawford, the respective full-backs, refused to be upset by the kicks upfield, and were very sound in defence.

The marking and tackling was well up to Cup-tie standard, and Babrow in particular was outstanding in his smother tackles of Squire.

Towards the interval, St. Mary's began to press hard, and they too lost a try in the following up of a kick ahead through a knock-on near the goal-line.

At this stage St. Mary's lost one of their best forwards in G. J. Reynolds, who retired with a leg injury and took no further part in the game.

The loss of this player inspired the side to greater efforts, and Talbot led a magnificent forward rush to Guy's 25, and from a scrummage near the line Bok found Craddock unmarked, and the latter, after a fine run of 20 yards, managed to cross for a try, which Walker failed to convert.

With only three points separating the two sides Guy's started the second half confidently, and immediately compelled St. Mary's to defend their goal line.

It looked as though Guy's would carry all before them. First Allen dropped at goal from 30 yards and missed by inches; then Kark tried to land a penalty goal from midfield, but the ball fell just short of the crossbar, and finally a magnificent three-quarter movement between Allen, Babrow and Dick was spoilt by a knock-on when a score appeared imminent.

However, St. Mary's recovered from these early shocks and, following a grand forward rush, they quickly transferred play to Guy's 25. St. Mary's were much more fortunate at this crisis in the game, for then Squire had a drop at goal charged down, the ball bounced luckily for Craddock, who picked up in his stride and crossed for a try, which Walker converted.

This reverse had a demoralising effect upon Guy's, and for some time nothing appeared to go right.

Kark had another attempt at a penalty, and again only missed by inches, but immediately afterwards Walker nearly scored from 25 yards' range when his kick at goal hit the upright.

Although St. Mary's had only seven forwards they more than held their own, and Bok at scrum-half was the inspiration of his side. He varied his attack every time and proved a big factor in the success of his side.

However, one excellent movement between Babrow and Dick deserved a better fate. Babrow received from Allen, drew his man, and sent Dick away magnificently. After dodging two or three opponents, Dick passed to Morey, but he was crowded out five yards from the line.

From the scrum which followed, Bok broke away and Graham-Jones, Squire and Muller passed at top speed, and eventually Craddock had a clear run in for a try, which Walker converted from the touch-line.

In the closing stages, St. Mary's settled the issue when Squire, intercepting a short pass from Babrow to Dick, ran over between the posts for a try, which Walker converted easily.

Team.—J. P. Crawford; L. G. Morey, R. C. S. Dick, L. Babrow, R. U. F. Kynaston; R. D. Allen, K. A. Stanyon-Jacques; M. R. Kark, E. S. Nicholson, H. H. Crabb, A. Forbes, P. Fletcher, R. O. Yerbury, P. D'O. Kolesar, C. S. Darke.

Guy's v. Old Paulines

(At Thames Ditton on Saturday, March 26th)

GUY'S found great difficulty in fielding a representative side, and, although the forwards were practically at full strength, only two of the backs who appeared against St. Mary's were able to turn out.

The Old Boys, captained by R. A. P. Hogbin, were in splendid form and excellent team work carried them to victory by 4 placed goals, a penalty goal and a try (26 points) to a placed goal (5 points).

Hogbin, who led his side skilfully, also showed that he was still a master in the art of goal-kicking by landing four of the goals from various angles.

No doubt Guy's were feeling the effects of their mid-week Cup Tie, and the forwards were overshadowed by the Old Boys' pack, who were excellent both in the set scrums and the loose.

The home side took the lead within two minutes of the start, when Maclean cleverly cross-kicked for Hogbin to gather and open the scoring with a try.

Forcing home the advantage, the Old Paulines kept up the pressure and, from a loose scrum near the Hospital line, Killick forced his way through a bunch of players for the second try, and this time Hogbin converted easily.

The Old Boys increased their advantage almost immediately, when Marsh, one of their forwards, intercepted a bout of passing and crossed for a try, which Hogbin converted, and a minute later Salmons sent out a perfect pass to Commings, who ran over near the corner. Hogbin added the goal points with a fine kick from near the touchline.

Playing confidently, the Old Boys never let Guy's rest after the interval, and from the kick-off Samuels intercepted a pass, and, kicking over the line, just managed to touch down for a try, which Hogbin improved.

After this reverse, Guy's improved, and a fine individual effort by Van Steytler was rewarded when he went clean through the Old Boys' defence and passed to Hanson, who raced at top speed over the line. Kynaston added the goal points, and although Babrow, Kynaston, Crabb and Forbes combined in some fine raids, they failed to penetrate a strong defence, and towards the end Hogbin completed a grand afternoon's work by registering his fourteenth point when he landed a beautifully judged penalty goal from forty yards' range.

Team.—C. Halamandres; J. M. Hanson, R. U. F. Kynaston, L. Babrow, J. L. G. Hartley; J. van A. Steytler, J. W. Lewis; H. H. Crabb, E. S. Nicholson, J. P. Rochford, A. Forbes, P. Fletcher, P. D'O. Kolesar, R. O. Yerbury, C. Vidot.

Golf

THE PAST AND COMING SEASON

THE 1937 season came to an end last month with our unfortunate defeat in the Final of the Inter-Hospitals Cup. We had had a varying amount of success in our Club matches during the summer, our best performances being the defeat of Sidcup and the victory the Dental side gained in our maiden match against Moor Park. But the Inter-Hospitals matches at the end of the season were undoubtedly our best efforts, and it was disappointing to lose the Cup to St. Thomas's again after beating Middlesex and London so confidently.

The 1938 season opens on Wednesday, April 27th, with a medal trial game at Beckenham Golf Club for which all golfers at the Hospital, particularly freshmen, are urged to enter. It is hoped that as a result of this competition some new, and needed, talent will be brought to light.

We have during the next three months some excellent matches against such clubs as, for example, Moor Park, Sandy Lodge, Royal Wimbledon and Northwood, and I hope that all the members of the Golfing Society will have a chance of playing in some of them.

As well as these friendly matches we have the Spring and Autumn meetings of the United Hospitals Golfing Society at West Hill, our own President's Prize Competition at Moor Park, and, in the Autumn, the knockout competition for the Hospital Cup, which we must definitely win this year. In order to do that, however, we must get together a really good team as soon as possible; so will all those at the Hospital who can play golf at all please put their names down on the list posted in the Colonnade. Any further particulars can be obtained from T. N. Praat in the Conservation Room.

Cross-Country Running

THE forty-fourth Inter-Hospitals Race for the "Kent Hughes" Cup resulted in Guy's retaining it for the third successive year. This also brought the total number of victories up to twenty-two.

The Hospital team ran very well indeed, having this year to face sterner competition and greater numbers than for many years. Guy's entered a team of fifteen runners.

A. E. J. Etheridge accomplished a performance unsurpassed by any Hospital runner. He led from the start and finished the stiff 5½-mile course

in 32 minutes 3.5 seconds, a new course and Hospital's record. This superb performance, also his fifth successive win, equalled the record of H. A. Munro (Guy's), who won from 1892 to 1896. Dr. Munro was present to congratulate the winner.

This win, following upon his fine victory in the Universities Athletic Union Championship in Sheffield and even more astounding performance in the South of England Championship, in which he finished a good second, covering ten miles in 55 minutes 50 seconds, have established him as a likely contender for the National Title. This race is being held at Reading, and he has only to improve a few places on his performance last year in order to gain a place in the English team. He will be the first University or Hospital runner to do this if he succeeds.

H. C. Martin, running in his first inter-hospitals race, sprang a surprise in finishing fourth. He has improved out of all recognition, and as he is in his first year, has a great future.

C. E. Shadland, who finished fourth last year, improved on all his previous times to finish seventh. The value of this performance cannot be over-estimated.

P. N. Swift and D. J. Lyon finished together twelfth, both running well above their usual performance.

P. A. Dodington, who was one of last year's scoring team, was unfortunate in going off the trail, and never recovered from the setback.

Henry and Taylor, who had previously finished eighth and fourth respectively, were highly placed, and only the generally improved standard prevented them from being in the scoring team.

B. P. Griffin, a brother of the former captain of the Athletic Club, ran remarkably well in his first hospital race.

Results.—

1. Guy's (1, 4, 7, 12, 13), 37 points.
2. St. Bartholomew's (2, 3, 6, 12, 13), 60 points.
3. St. Thomas's, 69 points.
4. London, 75 points.
5. St. Mary's, 84 points.

D. J. L.

Hospital Information, etc.

Pass List

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.
March, 1938.

Surgery.

H. B. O. Cardew.

Medicine.

*J. D. B. Perkins.

Forensic Medicine.

*J. D. B. Perkins.

Midwifery.

E. L. Moll E. S. Nicholson
T. E. Ooi

* Has now completed the examination

Papers by Guy's Men

K. Simpson and Another. Sudden death from the Gierke's (Glycogen) disease. *Lancet*, 1938, i, 659.

A. H. Harkness and Others. "Gonococcal antitoxin" in the treatment of gonorrhœa. *Brit. Med. J.*, 1938, i, 605.

George G. Ellis. Caries. *Brit. Dent. J.*, 1938, lxiv, 319.

Allen C. Hancock and Another. Air-raid precautions in a mental hospital. *Lancet*, 1938, i, 589.

Sir Arthur Hurst. Physical basis of "Biliousness" and "Wind round the heart." *Brit. Med. J.*, 1938, i, 661.

T. T. Stamm. A method of grafting long bones. *Proc. Roy. Soc. Med.*, 1938, xxxi, 461 (Sect. Orthop.).

H. W. Barber. Scleroderma and vitiligo. *Ibid.*, 472 (Sect. Derm.).

L. Forman. ? Scleroderma : Case for diagnosis. *Ibid.*, 474.

G. B. Dowling. Premycotic erythema. *Ibid.*, 475.

L. J. Witts. High calorie feeding in gastric and duodenal ulcers. *Med. Press and Circ.*, 1938, cxcvi, 240.

B. G. Shapiro. The action of creatine and creatinine on the circulatory system. *J. Physiol.*, 1938, xcii, 178.

H. J. B. Atkins. Chronic mastitis. *Lancet*, 1938, i, 707.

Changes of Address

H. St. John Rumsey, 161, Clarence Gate Gardens, N.W.1. *Paddington* 2810.

J. E. Spalding, M.B., F.R.C.S., 6, Merrick Square, S.E.1. *Hop* 3670.

E. S. Walmsley, L.D.S., R.C.S., Walcot, Wallingford, Berks.

EDS. { H.B.O.C. / C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — *23rd April* 1938 — *Number* 1298

PASSIM

AT this time of the year, when the countryside is decking itself in a new finery and when the eye is gladdened by the pinkest of pink blossoms and the yellow daffodils are everywhere, we are wont to lie on our backs on a primrose-covered bank in a shady lane and compose some exquisite trifle to throw at your feet, for only thus can we capture the altogether soft and pleasant atmosphere of this loveliest of seasons and obtain the necessary inspiration for our pens. This Easter we have had to forego such a pleasure, and have incurred the strongest displeasure of our Muse, whose sensitive being is shocked by her prolonged sojourn in the fœtid atmosphere of the Boro' air and would away with us to the Elysian fields, which, she somewhat stiffly informed us, had no reference to a week-end in Paris. Thus, doubly disappointed, we remain closeted with our prosaic editorial selves, deserted by the good lady and faced with dreary wastes of blank paper. The Hospital news is not of a sensational kind and in no way merits a headline. There are some small items which deserve mention. We have, for instance, a new ward which, although it has been in existence for a matter of days or weeks (we cannot discover which), has already had the distinction of being renamed twice. The new ward occupies the proximal end of Bright Ward (ex-Mary). Its first name was Richard—see the idea? Apparently this was not considered satisfactory, and we confess the prospect of a combined round being held between Richard and Bright was almost sacrilegious to contemplate, so a new name was proposed—that of Wilks—and this apparently is the permanent one, since that name has appeared with Bright's on the combined door of the wards. It has a Sister to itself as well as a name. And while talking of ward names, is it not time that the name-plates in the lifts were changed to indicate correctly which ward is now on what floor?

There has been great activity in the dining-room of the College since the holiday started. We have been unable to see any macroscopic change, but we are told that there have been installed some extractor fans which will presumably remove any of the culinary smells which have a way of rising from the underground regions.

Although no official intimation has as yet reached us, we have been told on good authority that the Medical School Council has recommended that an offer of £300 be made to the College for purposes of redecoration and renovation. This will prove welcome news for those among us who have to pass our days within its far from salubrious portals. As we have so frequently pointed out before, it should be quite feasible to render life much more habitable in the College without envisaging the complete reconstruction of the building.

As to the Hospital itself, everything continues as normal, at least as far as external appearances are concerned. Wild rumours have been current for months concerning the altogether parlous financial situation in which Guy's finds itself at the moment. There is every reason to believe that matters are at least as serious as rumour suggests, but we hope that the future of the Hospital will not lie along any of the various paths which these unofficial comments have suggested.

Until some official pronouncements are available we will but say, with all Guy's men we are sure, that we hope those responsible for guarding the financial interests of the Hospital will arrive at

some satisfactory and permanent solution to what must be a vastly difficult and complicated problem.

WHAT is the most important subject in the world? Presumably the one which occupies the most of one's mind—conscious and unconscious—and forms the main subject of one's conversation. Using these criteria, we have recently listened in to the Medical Student as found in our midst and discovered—not unexpectedly—that he is, first and last and between courses, concerned with one preoccupation, namely, Exams—and this preoccupation of mind does not end with the medical student, for the recently qualified houseman is about to take his Final M.B., the anatomy demonstrator is perhaps having his second shot at the Final Fellowship, and the registrar, having recently gained his M.R.C.P. or F.R.C.S., is now starting to worry about his M.D. or M.Ch. Why this hierarchy of hell should end here we do not know. How much more logical to continue it indefinitely; a series of super-examinations might be instituted for members of consulting staffs, each one more appallingly difficult than the last, until one was reached demanding such an incredible degree of skill that only one man (or woman) in a decade perhaps could be found suitable to pass it.

Why we English should put such a high premium upon letters and honours it is difficult to understand. We are usually accused by our Continental friends of stressing insufficiently academic questions and of trusting too implicitly to native wit and common sense, yet on the subject of examinations in medicine we show an almost Oriental regard for titles and distinctions, which is unfortunately often in evidence as mere vulgar snobbery. We believe it to be generally true that in most of the countries of the world there is one standard required for all practitioners of Medicine and Surgery. If one wishes in these countries to become recognised as a leading exponent of some branch of the subject, the only path is by recognised clinical work carried out at some institution of note, and by the subsequent appointments which this recognition carries with it. We wished it were true in our country. To obtain recognition and staff appointments in England entails not only clinical acumen but the particular type of mind which can absorb and retain for a few days a cumbersome mass of material which no human being could be expected to incorporate as a permanent part of his mental make-up, and indeed, why should he? —since he has all those minutiæ at his elbow in textbooks. The higher examinations in Medicine and Surgery can have but one reasonable object, and that is to distinguish from the ordinary ranks of the profession the man who should be a leading exponent in his art. The gold medallist, however, ensconced safely in his appointment, sometimes proves to be so lamentably lacking in the very qualities needed that twenty years later people wonder how he ever obtained his position and suggest that his real talents lay quite elsewhere. If these medals and higher examinations fail, therefore, to discover the hidden talents—and fail they do we claim, some other criterion must be used. This should doubtless be the possession of sound clinical judgment as shown over a period in the practice of Medicine and Surgery.

And what of the qualifying exam? Is it necessary or desirable to have four standards in London alone, let alone those of the different Provincial and Scottish examining boards? There is something rather undignified, we find, in a great profession providing for the public, practitioners labelled according to quality—the first a full-blown M.D., the second an ordinary M.B. B.S., the third a mere "Conjoint," and the fourth—almost beneath contempt—an L.S.A. Are these distinctions real ones? If they are, it is time that they were abolished, and the public were provided with one recognised standard which it could expect from all medical practitioners. If the distinctions, on the contrary, are materially unreal, as we believe, why perpetuate a system which lends itself to petty snobbery and places an unwanted premium on book work and a retentive memory?

We do not suggest that the standards of the profession should in any way be allowed to deteriorate. On the contrary, we should like to see a higher standard of general education required as a prerequisite for taking up Medicine; less stress, perhaps, laid upon the pre-clinical sciences and a compulsory year's clinical work as a graduate in a recognised institution after qualification. The additional time and effort required for this last year would be more than compensated for by the abolition of the necessity of burning the midnight oil in order to take higher examinations intended to distinguish one from one's less academically-gifted fellows.

We wonder whether it is too much to expect that some improvement may be hoped for in the organisation and standards of medical education. We are not very sanguine, for custom and usage die hard, and the majority of those who rule the destinies of the poor medical student are themselves—to their credit—holders of all the honours and titles the profession could offer them, and will not readily abolish these monuments to their assiduity.

Obituary

ARTHUR H. CLOGG, L.D.S., R.C.S.Eng.

THE tragically sudden death of A. H. Clogg following an emergency operation has resulted in the loss to the dental profession of a distinguished member and one who followed with faithfulness its best traditions. All who knew him will deeply regret his passing.

Arthur Clogg, known to his friends, intimates and patients as a man of unassuming but sterling character, will be remembered by the kindly nature, the sincerity, the helpfulness, and the sound common sense that governed all his actions. He left Guy's in 1901 where he was dental house surgeon, commenced practice in Norwood and soon found his merits recognised by a clientele which grew steadily larger, and later practised as well in the West End. He was a member of the British Dental Association Metropolitan Branch, the British Dental Society for the Study of Orthodontics, and served on the Committee of the Benevolent Fund.

Always a keen worker and receptive to new theories and methods Clogg had the faculty of gauging their practicability and usefulness remarkably accurately and would either adopt or discard them according to his judgement, which was generally sound. Nowhere was this more evident than in his attitude to orthodontics.

A devoted husband and father, ably aided by his wife, he had placed his children in happy circumstances, and his chief life's work seemingly accomplished he was contemplating a well-earned retirement. This, unhappily, was not to be, though had he spared himself during his energetic and useful life he might have enjoyed longer, amongst his family and friends, that peace of mind which comes to those who are entitled to feel that their work has been well and truly done. His great interest outside his profession was in his garden which he loved and in which he spent most of his leisure hours.

For his widow, son, D. S. Clogg, who joined him in partnership in 1929, and two daughters who mourn his premature loss, the sincerest sympathy will be felt. A reflection which may bear some solace to them is that though the link is broken the chain of precious memories will endure.

What are Chance Variations ?

By J. S. Wilkie, Esq.

" Luck is, simply speaking, the cause of nothing."
—*Aristotle* (Metaphysics, Book XI, Ch. viii, 1065*a*)

IF we were to ask any person of average scientific education, what is meant by the Darwinian theory of Evolution, he would probably reply, " the natural selection of chance variations." It is not easy to know what is the general opinion among those more closely concerned with this problem. Some would seem to consider the theory, as stated above, to be now discredited; but their objection seems rather to the words than to the sense, so that, while they do not use the words " chance variations," they yet have a notion of variation which would make it depend, in the last analysis, upon chance. Others seem to abandon the problem of the origin of variations and to fix their minds rather on a consideration of the details of natural selection. Yet it is plain that the central problem of Evolution is that of the origin of variations, and to make selection the prime cause of Evolution is no better than to make the midwife the father of the child.

It should not be necessary to say of selection that it can only select. Yet it is necessary to say this, in view of the almost magical powers sometimes attributed to it. The following passage is no bad example of the opinions sometimes held about natural selection: " although natural selection does not originate variability, it does serve to foster and encourage it. Not only so, but we must realise that any particular variation is the outward expression of a *tendency* in the organism to vary in that particular direction. The selection of individual variations in a particular direction involves therefore selection of individuals tending to vary in that particular direction and as a consequence the encouragement and intensification in the race of a tendency to vary in that particular direction." (Graham Kerr, *Evolution*, Ch. x.) The word " encouragement " is here used rather oddly and recalls the famous *pour encourager les autres*, since it is an encouragement by killing off those which fail to comply with the required condition; but what really is not tolerable

is the word "intensification," since selection as such cannot intensify a tendency in the race, however much it may serve to make that tendency more apparent.

It is curious to find a more recent author wistfully requiring of natural selection the very reverse of this encouragement, though at last he admits that he is requiring the impossible.

"For every favourable mutation . . . there are hundreds of unfavourable mutations . . . Further, the unfavourable mutations are mostly highly unfavourable. . . .

This raises the question—why does the mutation rate not become reduced to zero? No answer seems possible at present, other than the surmise that the nature of the genes does not permit such a reduction. In short, mutations are accidents, and accidents will happen."—A. H. Sturtevant. *Q.R. of Biology*, Dec., 1937.*

Though he makes this admission of impossibility, Sturtevant does not say clearly that we cannot make a variable stock invariable merely by thinning it out. If, of course, one part of the stock be more variable than the other, then the one might be selected to suit Graham Kerr, or the other to suit Sturtevant; but it is plainly not within the powers of selection alone to *bring about* such a difference.

Natural selection can neither initiate nor terminate variability, nor can it of itself make permanent any purely casual disposition, as some of the more extreme Darwinians certainly thought it could, in their discussions of the origin of living things; for they thought that living things could originate by chance and be preserved purely by selection.

To illustrate these points, let us take a trivial example, which, nevertheless, is adequate to our purpose. Suppose we have a number of hats partly filled with marbles. By shaking these hats we can give to the heaps of marbles certain arrangements which will be purely casual: that is to say, there will be no one simple cause of any particular arrangement, but it will depend upon a number of causes no one of which will predominate, unless it be that some of the marbles are heavier than others, or something of that kind. This does not mean that the position of any particular marble is uncaused, or even incalculable, though it may be incalculable to *us*, but there is no one cause of any particular arrangement, and so these arrangements are purely casual.

Selection in this case means simply that we can take away some of the hats with their contained groups of marbles, but it is plain that this selection cannot determine when we shall begin or end our shaking, which is the cause of variation. Moreover, however attractive any particular grouping of marbles might be, we could not *by selection* make such a grouping permanent, or even static for a short time, but the forces which brought it into being would also cause it at once to pass into something else. It is indeed possible to us to stop shaking and to let any particular disposition remain, but this is something quite different from selection.

If we have a number of things essentially variable we cannot by selection make one stable.

This shows, if it were necessary to show, how impossible it is that living things should have arisen purely by chance and been preserved purely by selection, for though in a sense they are always changing, yet they always retain unchanged the fundamental character of living things and *this* is not a matter of chance.

Living things might, indeed, have arisen partly by chance, as, if I come into a room full of an explosive mixture of gases, it may be that I light a match by chance, but the subsequent explosion is not strictly speaking a matter of chance, though the whole event may be called an accident.

These considerations bring us to the point of our discussion. We are not discussing purely casual dispositions, in so far as these can exist, but accidental variations.

Variation means variation from some constant. There must be some force or forces tending to retain some constant, and variations are variations from this constant.

Now what is "heredity" or "inheritance" if it be not a force or forces tending to retain a constant? Or we may say simply that in the generation of living things there is a tendency to remain constant, and so we can avoid using the word "force." This is certainly the nature of living things as we know them, and it matters not what they may have been at their remote origin, for science is about what we know, not what we don't know.

The better to understand chance variation (if there is any other kind of variation, we are not at present concerned with it), let us take another simple example.

Let us suppose a man is shooting at a target. It might, here also, be possible to obtain a purely casual arrangement of shots on the target, if it were at a great distance and the marksman had no intention of hitting it in one particular place, but simply of hitting it. Or if a number of men

* I have not been fair to Sturtevant in making so short an extract. He is really discussing the selection of stock in which there are known to be genes affecting the mutation rate. But it is still true that selection can only establish the more or the less variable part of the stock, and that if any *further* change in variability is to take place, this must be due, in the first place, to something other than selection.

were to shoot at such a target, we might have a purely casual arrangement of hits. There would be in this case an arrangement due only to chance, or more properly, chance would be the only cause of the grouping, because there would be no grouping.

But we are concerned with chance variation. Let us, therefore, suppose that a marksman is shooting at a target with the intention of hitting the bull, or, to eliminate the idea of intention, let us simply suppose a rifle to be held in a vice and pointed at some particular mark. It is clear that, whether the mark be at a sufficient distance to make these apparent or not, there will be true chance variations about a mean; the mean will be maintained by the stability of the vice and the direction of the barrel; the variations will be due to a number of causes tending to make the vice vibrate.

This, however, is only half the problem. A little consideration shows that two fundamentally different " accidents " may affect our instrument: those which, however great a deviation they may produce, do not overcome the directing and stabilising forces, and those which do.

A particular shot "A" may be wide of the mark to just the same extent as a shot " B," but if in one case the deviating cause has not overcome the stability of the director, and in the other case it has, then the two " accidents," although their immediate effects are similar, are really not in the same class, and their subsequent effects will be widely different: the derangement caused by the one will be transient, that caused by the other, permanent.

It is clear that this is no mere analogy. When a force or power or mechanism tends to bring about a certain effect, this effect will be more or less modified by circumstances, since no force acts alone in this universe. This modification may change the effect more or less without changing the force, or it may change the nature or direction of the force.

When we apply this to inheritance we see at once that we have one type of accidental variation which cannot be inherited, since it is a change of the effect and not of the effector, and a second type which by its nature must be inherited.

Let us now consider what will be the special characteristic of each of these kinds of variation. The first type of variation must be frequent, since a multitude of causes and circumstances intervene between the initial directing cause in the germ-plasm and the final effect, the fully-grown organism. Moreover every part of the organism must be subject to such variations. Since they do not alter the director itself, most of these variations will be small and near the mean, just as most of the hits will be near the bull in the first part of our example.

These variations, *could they but be inherited*, would form an excellent basis for evolution by natural selection. They are frequent, affect all organs of a body and are seldom extreme. But as we have seen, they cannot, by their very nature, be inherited. These seem to be the " continuous variations " of the early Darwinians, and it seems chiefly on the supposition that these could be inherited that the " Darwinian " theory was formulated. Since the experiments of Johannsen these " continuous variations " as a cause of evolution have been discredited, but it really needed no experiment to discredit them.

Let us consider the characters of the second type of chance variation. These must be inherited, but they do not really appear to be a satisfactory pabulum for selection. In the first place they are not forced to approximate to the mean, as the others are, but they may be so large as to be lethal, or, though in the right direction, they may go much too far for the immediate needs of the organism. Moreover we have no certainty that the simultaneous improvement of several organs would be possible if based merely on the selection of such variations. There is no reason why such a violent accident affecting, let us say, the heart, should happen at anything like the same time as one affecting the lungs, though it would generally be necessary that these two organs should keep pace with one another. This difficulty, as we have seen, did not apply to the old " continuous variation " hypothesis.

What we have offered to us by the casual school of Evolutionists is a choice between small variations which do not upset the mechanism of inheritance, and therefore cannot be transmitted, and larger variations which do upset this mechanism, and therefore, it would seem, can hardly ever be beneficial. If it is objected that the word should not be " upset " but " modify," we must reply, that if the variation is really a casual one, then " upset " is the proper word. The word "modify" would introduce quite another element into the discussion, which is not about *any* sort of variations, but simply about chance variations.

It really seems as if, for the source of our variations, we must go back to our first analogy of shaking, but it is now not a case of shaking hypothetical heaps of marbles, but actual machines, more or less accurate and more or less delicate, for this is what organisms are.

If we were to adopt this method of " improving " a number of machines, when the subsequent process of selection was initiated, it would not be a case of selecting those which had been most improved but those which had been least impaired.

We now have to ask whether this second type of variation is the same as mutation, since we identified our first type with " continuous variation."

This question cannot be answered by an inclusive affirmative or exclusive negative. *In so far as* mutations are accidents of this type, all that we have said above will apply to them. No one can study mutations without having at least a passing suspicion that few if any mutations could be of use to the organism. More than a mere suspicion of this is expressed by Sturtevant in the quotation we have given.

The methods which have sometimes been adopted to foster mutation, such as bombarding the organism (and hence its germ-plasm) with X-rays, do not give us any idea of mutations other than that they are truly of an accidental nature in the full sense.

Again we might pause to ask, whoever thought of improving a machine by peppering it with a shot-gun? Not, of course, that the intention of the investigators was in this case to improve the race, but, if this is one way of producing mutations, we cannot but suspect that they are in general the result of accidents which cannot be beneficial to the organism.

If only the fifteenth century could have produced some of the more extravagant flights of Scholasticism, it really seems that only the nineteenth could have produced this theory of the perfection of the race by killing some of its members and knocking about all, much as some of our modern rulers seek to perfect their subjects.

It may be asked what other origin we can attribute to variations, and whether by seeking to demolish the " Darwinian " theory we wish to establish the Lamarckian? Our own opinion is that the Lamarckian theory is now what it always has been, a theory plausible but unproved, and, though we have never believed that it is to be shouted down or laughed out of court, yet its patrons must establish it if they can as all other theories are established, by evidence.

The chief objection to this theory still seems to be that the germ-plasm is segregated so early in the development of each individual, and, even with the most vitalistic interpretation of heredity, it is difficult to see how events occurring to the parent after the segregation could influence the progeny. However, what is difficult to understand is not therefore impossible.

One of the strangest suggestions we have heard is that variations occur in the germ-plasm " spontaneously." This can only mean that they are not caused by any external agent whatever; in fact, that the thing changes itself.

There is a sense in which a thing can change itself, and a sense in which such a change is totally impossible. To take the second first: either the thing gives itself what it has not got, which is impossible, or it gives itself what it already has, which is absurd.

A thing may, however, change itself in so far as what was latent becomes patent. This is the case in the development of the individual, but even here we may ask whether the various stages of development, though really latent in the egg, are not evoked by something outside the organism.

This theory would make the process of Evolution very like what the word seems to imply—a pouring forth of what was pent up, or the unrolling of a volume already written. This may be the case, but if it is, we are now in the realm of causes which it is not within the scope of natural science to investigate.

It seems to me that we are asking which of a number of inadequate causes is adequate to cause Evolution. As if a man should run from one penniless friend to another asking for the loan of a thousand pounds. It may be noted here that Darwin himself, who was perhaps not very difficult to satisfy in this matter, required the union of both " Lamarckian " and " Darwinian " causes; at least this was his opinion when he wrote " The Origin of the Species."

In a sense, there is now no Theory of Evolution. That some evolution has somehow taken place must be considered no longer a theory, but a fact, but to account for this fact we have one theory which is absurd and another which, in the space of a hundred years, no one has been able to place upon a basis of reasonable probability.

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Assessing the Importance of Dental Sepsis in Systemic Disease

Newland-Pedley Prize Thesis, 1937.

Read to the Dental Society on Thursday, 2nd December, 1937, by Paul Borghys, Esq.

(continued)

II.—THE RADIOGRAPHIC EXAMINATION

In searching for dental sepsis with radiographs, it is generally agreed that it is necessary to take fourteen films all round the mouth, so as to include at least two different angles of each tooth or root. Parts of the jaw without teeth should also be radiographed, as absence of crown does not always mean absence of root or infection.

It must be stressed that good radiographs are essential to arrive at a satisfactory diagnosis, and, further, that without a sound knowledge of the appearances of the normal, a radiograph may be interpreted incorrectly.

Besides radiographing the teeth, it is important that the antra and accessory sinuses be X-rayed for any evidence of infection.

The result of a radiographic examination must not be taken as final, it must be used in conjunction with the clinical and other examinations.

The radiograph has certain limitations in that a change from normal does not necessarily denote infection. It has been found that quite large rarefied areas proved to be sterile on bacteriological examination. In the same way, if no bony changes are discernable, absence of infection is not proved. It has been shown by many authorities that the percentage of infected X-ray negative pulpless teeth is very high, almost as high as X-ray positive pulpless teeth; likewise X-ray positive pulpless teeth have occasionally been found to be sterile.

A radiograph shows two types of change: rarefaction and sclerosis. Both show that an irritating agent is or has been present. Rarefaction may, or may not, occur round the apices of teeth, it may be diffuse or well defined. The root of a vital tooth may show some shortening or a rounding-off of the apex; this is usually indicative of an infection. Loss of alveolus, and the depth of pockets in pyorrhœa, can be judged by the amount of bone absorption.

Sclerosis may occur round the root tip and produce an exostosis; also there may be a diffuse sclerosis of the bone round a tooth. Sclerosis usually occurs round vital teeth which have a low-grade infection, and should receive special note in searching for foci of infection.

Many authorities state that they consider the X-ray negative pulpless tooth and diffuse areas of rarefaction as most likely to cause systemic disease. They say that, on account of the limiting effect of the fibrous capsule of a granuloma, there will be much less toxic absorption into the blood and lymph streams, because the area constitutes a resistance to infection. But, it has been said that it is difficult, if not impossible, to make a differential diagnosis between the various apical osteitis by radiograph alone, and, further, the radiographic appearance of dead and vital teeth is the same if no root-filling or bony change is discernable.

III.—EXAMINATION OF THE BLOOD AND URINE

There is some difference of opinion as to the value of blood examination in dental sepsis. Sir Kenneth Goadby attaches great importance to it, and says that in acute infections there is a leucocytosis with a proportional differential count; in septic infections of an acute type the leucocytosis is accompanied by a polymorphonuclearcytosis, and by further examination or Arneth's count a number of immature cells are present; in chronic infections it is usual to find a leucopenia, with polymorphonuclear cells of juvenile type. The presence of these immature cells indicates that pressure is being placed on the resistance of the body.

He states that the red cell count in chronic focal infections of the jaw is not usually reduced, although there may be a low colour index of below 0.6. He thinks that there is constantly an increase in mononuclear cells when pyorrhœa is related to systemic disease.

He also states that " in chronic infections of all types bacteria which gain entrance to the blood stream are excreted through the kidney without any symptoms or signs of kidney involvement," and that " the finding of organisms of mouth type in the urine associated with the existence of demonstrable oral pathology is significant and suggestive of, at any rate, the existence of sub-infection."

Bulleid says that " the blood-picture of patients with open dental sepsis is not abnormal enough to be very informative." He found in patients with four or more pulpless teeth of long standing that there was a leucopenia, decreased hæmoglobin

and fewer red cells, the differential count showed a slight lymphocytosis. He concludes that the blood changes produced either by open or closed sepsis are slight, and that they are " rather more marked in closed than in open sepsis."

Daland states that " lymphocytosis in the absence of leucocytosis is occasionally a sign of systemic invasion from a latent focus of infection."

Toren and his co-workers report the finding of a special type of leucocyte in the blood, which, they say, indicates infection round the teeth; they cite many clinical cases in support of their findings, but their work has not yet been confirmed.

Haden carried out extensive experiments on blood examination, and concludes that in patients with rarefied areas there is a slightly higher white cell count than in those with no radiographic evidence of infection, when systemic disease is present the difference is greater. With the differential counts " the increase in white cells is due to a general increase in all types of cells, although there is a slight relative increase in the polymorphonuclear cells. There is no relative increase in the lymphocytes and large mononuclear cells." He has found no evidence of a special leucocyte peculiar to focal infection. He concludes that blood examination is of little value in the diagnosis of dental infection.

Chemical examination of the blood has received some attention, and both the level of the ionic calcium of the blood and the uric acid content have been used in attempts to connect blood changes with dental infection.

It seems that blood examination is, at the moment, unreliable as regards dental infection, although it is very important as a routine examination and should on no account be omitted. Cases have been reported where the dental disease was traced to a leukæmia, and where systemic diseases were due to other unsuspected causes, which were diagnosed, or at least first found, by blood examination.

IV.—BACTERIOLOGICAL EXAMINATION

The bacteriological examination may be considered under two groups :—

A.—Examination of direct smears, and smears from simple cultures of material taken from the mouth and teeth.

B.—Examination by special means of the reactions of cultured organisms.

A.—*Examination of direct smears, and smears from simple cultures of material taken from the mouth and teeth.*

In this first group specimens may be taken from the following :—

1. The gums and pockets round the teeth.
2. Extracted teeth.
3. Apices of teeth *in situ*, surgically and aseptically exposed.
4. Residual areas of rarefaction, root fragments and cysts.

1. *The gums and pockets round the teeth.*

Direct films of material taken from the gums and pockets round the teeth show the presence of a definite flora, and are useful in determining the type of infection present and the progress of treatment.

Bulleid states that, " in cases of pyorrhœa in which the disease is progressing and in which there is the possibility of toxic absorption, the type of leucocyte is highly important. Polymorphonuclear leucocytes denote active pus-formation." As a result of conservative treatment no pus-formation should take place, and direct smears should show only a few mononuclear leucocytes.

Very often fusiform bacilli in symbiosis with the Vincent's spirochæte are found; authorities state that they have not found them causative in systemic disease of focal origin. Their presence denotes an inflammation of the gum. Vincent's infection is acute ulcerative gingivitis and produces marked toxic effects with pyrexia and malaise; this condition must not be confused with cases which show some fusospirochætal flora.

Amœba buccalis is also frequently found; some authors attach great importance to its presence, and consider it to be an ætiological factor in pyorrhœa; others consider that it denotes stagnation.

The Leptothrix buccalis is the causative organism of seruminal tartar. Besides the above, cocci, bacilli and epithelial cells are seen in direct smears.

Cultures of material taken from the gums and pockets show streptococci of all kinds, but chiefly a non-hæmolytic streptococcus of the viridans type, staphylococcus albus and sometimes aureus. Other types are very often obtained on account of the difficulty of avoiding contamination.

2. *Extracted teeth.*

Great care must be taken to avoid contamination when extracting teeth for bacteriological examination. Okell and Elliott have shown that a bacteræmia is produced in most patients with pyorrhœa when their teeth are removed, and that

according to Round, Kirkpatrick and Hails, as cited by Fish and Maclean, a bacteræmia is produced when patients with marked pyorrhœa chew hard sweets.

Fish and Maclean confirm the above findings, and state that unless the pockets round the teeth are cauterised, the ordinary manipulation of the tooth in extraction pumps organisms along the lymphatics of the periodontal membrane to the apex and into the pulp. They find no histological evidence of inflammation to support the bacteriological findings of streptococci in the pulps of vital teeth, and say that it is improbable that the streptococcus ever inhabits the living tissue in chronic inflammation, but is always confined to a mass of necrotic material.

These findings will probably change the opinion of many regarding the bacteriology of the teeth.

Some investigators have taken cultures from teeth without previous sterilisation; others have examined teeth after preliminary sterilisation of the exterior. Some of the teeth have been vital teeth, the majority have been X-ray positive and X-ray negative pulpless teeth. The statistics available show a marked difference of opinion between the two groups. There is a higher percentage of positive cultures in teeth without disease and X-ray negative pulpless teeth that have not been previously sterilised, than in those that have been sterilised. In both groups we find very few negative results for X-ray positive pulpless teeth.

Hatton concludes that, "in determining the status of the pulpless tooth, it would seem that results of the bacteriological examinations, as performed by this second group of bacteriologists, may be considered as a substantial foundation for clinical practice, and that the data submitted by the first group do not justify the wholesale condemnation of either the X-ray pulpless tooth or the radiographic method of examination."

Arthur D. Black, in his tabulation, puts the percentage of abscesses in relation to all root-filled teeth at 45, the percentage for good root-fillings at 9, and for poor root-fillings at 63. So that with a sound root-canal technique it is possible to get as low an incidence of abscess formation as 9 per cent.

Nevertheless, cases have been reported where the removal of radiographic negative pulpless teeth has resulted in marked improvement of the systemic disease.

Haden found a streptococcus either alone or mixed with some other organism in 92.5 per cent. of 1,091 positive cultures. He found a staphylococcus only 19 times.

D. Thomson and R. Thomson in their researches report the finding of as many as sixteen different varieties of streptococcus isolated from a single infected apex.

The usual finding is a non-hæmolytic streptococcus of the viridans type, although hæmolytic streptococci have occasionally been found. Staphylococcus albus is also frequently found, and sometimes a diphtheroid bacillus.

Bulleid attaches importance to the possible symbiosis of the viridans streptococcus and the staphylococcus aureus, and cites two severe cases when he found them together.

3. *Apices of teeth* in situ *surgically and aseptically exposed.*

Bulleid reports the finding of a streptococcus in all of twenty cases of pulpless teeth that were examined by open operation.

He also reports that vital teeth with rounding off of the apices reveal a streptococcus either by open operation or by extraction.

4. *Residual areas of rarefaction, root fragments and cysts.*

Haden conducted some experiments on residual areas, and found that out of 75 cases, 57 gave a positive growth in broth, and 17 were positive on agar; the overlying bone was sterile in every case on agar, and positive in only 12 cases in broth.

He found that out of 75 cases of root fragments cultures were sterile in 12 cases in both agar and broth; 63 were positive in broth, and 43 were positive on agar.

Bulleid examined the linings of 16 dental cysts and four dentigerous cysts, and grew streptococci in all cases. When the fluid was clear it was found to be sterile, but when it was purulent or opalescent streptococci were grown.

B.—*Examination by special means of the reactions of cultured organisms*

In this second group the following will be considered:—

1. Vaccines.
2. Agglutination, complement-fixation and other tests.
3. The Schick reaction.
4. The elective localisation of bacteria.
5. Pathogen-selective culturing.

1. *Vaccines.*

Vaccines have been used many times in the treatment of dental infections and their systemic involvements.

From the literature available it appears that the type of vaccine used is very important. The use of a stock vaccine is of little use when one considers the enormous number of varieties of streptococcus it is possible to grow from a single apex, and that the varieties grown from one patient can be entirely different from those grown from another. A mixed stock vaccine is also of little use as the essential variety may not be included.

The results from the use of autogenous vaccines are much more encouraging, and many cases are reported where great benefit has been derived from them in clearing up both local lesions and their systemic effects.

Vaccines have been used to raise the resistance of a patient against a possible reaction, but it is difficult to judge how far they have been successful. They have also been used as local applications in gum infections; here again autogenous vaccines are most likely to give better results, but it is stressed at the same time that thorough mechanical cleansing is essential; it is improbable, therefore, that the vaccine by itself cures the condition, but once cleanliness is obtained the application of vaccine must raise the local resistance.

It is beyond doubt that vaccines prepared from dental lesions have helped in the treatment of systemic diseases. It is probable, therefore, that in these cases the teeth are causing or aggravating the disease.

Warren Crowe suggests a method of relating the teeth to general disease. If the radiograph reveals several teeth with apical rarefied areas, one tooth is removed and cultured. A vaccine is prepared and minimal doses are tried on the patient. If there is no reaction the teeth may be excluded as the cause of the disease. He further suggests that if a severe reaction is obtained from vaccines prepared from fæcal streptococci the teeth can be relieved of all blame.

2. *Agglutination, complement-fixation and other tests.*

Many attempts have been made to use the agglutination test to link a dental infection with a systemic disease, but a positive result is only obtained in cases which show very marked dental sepsis. It is of little value in deciding whether the single pulpless tooth, so often the only possible dental focus, is causative of the disease.

The Opsonic Index Test, the Precipitation Test and the Bacteriolysis Test all fail for the relatively insignificant dental focus of infection, but they all react well for cases with gross dental sepsis.

Labriskie, in 1920, published a paper recommending the use of the complement-fixation test in dentistry. He advised a complete blood examination, which gave him a Wassermann reaction, complement-fixation tests for colon bacillus, gonococcus, streptococcus, tubercle bacillus, staphylococcus, catarrhalis, etc.; a blood culture and a blood count. With these he could give a diagnosis or information leading to a diagnosis. Other authorities state that the complement-fixation test has failed as regards dental sepsis, but at the same time, if another lesion is found by this means, such as a positive Wassermann, the systemic disease is explained and the complement-fixation test has been of great value in freeing the teeth from suspicion.

3. *The Schick Reaction.*

Sir Kenneth Goadby suggests the use of the Schick reaction to decide which of several organisms isolated are pathogenic to the ptaient. He prepares killed antigens of each organism isolated. "A small portion (2 c.mm.) of each of these antigens, 50×10^{6} per c.c., is injected into the skin with a fine needle in the anterior portion of the thigh, leaving a space of about an inch between each injection. The injections are made so that a small white blister is produced in the skin, but without bleeding and strictly intradermally. In a high percentage of cases one or two only of the isolated organisms react. Two types of reaction occur, immediate and delayed, twelve to twenty-four hours. A positive reaction is considered presumptive evidence that the reacting organism is the infecting agent, whichever way one views the reaction, either as evidence of want of resistance thereto or as evidence of hypersensitiveness—allergy—in either case developed by long-continued absorption of the organism.

"It is, of course, understood that in this method of investigation any other cavities of the body, nasal sinuses, genito-urinary, respiratory, etc., have been subjected to close scrutiny and, if necessary, a bacteriological examination; it may be often found that the organisms present in the urine are not those found in the upper air passages, but have the characters of those of the intestinal tract, and that, further, the mouth organisms show no reaction, whereas those derived from some other source give a positive one. The process is, perhaps, somewhat laborious, but in dealing with chronic infections the time factor is not so important as in cases of acute septicæmia, and in established arthritis it is of the first importance to determine the actual focus."

4. *The elective localisation of bacteria.*

Rosenow conducted a series of experiments to show that bacteria have an affinity for the tissues

from which they are isolated when injected into suitable animals. This is true of the typhoid bacillus, which attacks the lymphatics of the lower ileum, and also of other organisms. He directed his attention to the streptococci and demonstrated that when organisms isolated from an infected tissue of a patient were injected into an experimental animal the same lesion from which the patient suffered was reproduced in the animal.

Many workers have failed to confirm these findings, but Haden, who has confirmed them, stresses the importance of supplying favourable conditions and media and also a gradient oxygen tension.

Haden used cultures from dental foci and managed, in all the cases he reports, to demonstrate the production, in a rabbit, of a similar lesion to that from which the patient suffered; furthermore, the systemic disease in the patient was in most cases improved after removal of the dental focus.

Rosenow considered the elective affinity of streptococci for certain tissues as being present in the bacterium, but Weston Price and other workers think this property is developed by the environment.

It seems that this property of elective localisation might be useful in connecting a dental focus with a systemic disease if a simple technique could be devised.

4. *Pathogen-selective culturing.*

It has been shown by several authors that the blood of animals has a bactericidal power.

Freshly drawn blood is inoculated with a culture of bacteria to which the animal is immune. On subculture, after incubation, the blood is sterile. If, however, an animal that is susceptible to the same bacteria is similarly inoculated, the bacteria survive and are obtainable from subcultures.

These findings have been extended to decide which of several possible foci of infection in a patient suffering from systemic disease is causally related to it, and, further, to isolate the actual organisms.

M. Solis-Cohen, of Philadelphia, and E. Cronin Lowe have described this test and call it " Pathogen-Selective Culturing."

Specimens obtained from suspected foci, such as dental foci, tonsils, sinus secretions, sputum, fæces, urine, etc., are tested with the patient's blood. The bactericidal power of the patient's blood will inhibit the growth of non-pathogenic organisms, but will allow those which are pathogenic to the patient to survive.

An equal quantity of material is inoculated simultaneously :—

1. on to a suitable medium which will allow all organisms to grow—this is called the " A " or " direct culture "—and
2. into a sample of the patient's blood, which is incubated for twenty-four hours and then subcultured on to a similar medium as used for the " A " culture—this gives the " B " or " pathogen-selective blood culture."

This procedure is repeated for each separate specimen that is obtained.

The " A " culture gives, on isolation, all the organisms that inoculate the sample of blood. The " B " culture, because of the blood's bactericidal power, will show, on isolation, only those organisms that are pathogenic to the patient, all others are inhibited; and for the same reason contaminating bacteria are eliminated.

By comparing the results it is possible to decide which of the organisms are pathogenic to the patient and from what focus they originate.

CONCLUSION

We have considered some of the types of dental sepsis and various ways that have been advanced from time to time of diagnosing dental sepsis and proving its relationship to some systemic lesion.

There can be no doubt that dental sepsis does cause systemic disease, but the large majority of people have dental sepsis with no noticeable general involvement; nevertheless dental sepsis is a potential source of danger, and has been described as a " streptococcal overload " which the patient is able to withstand until such time as his resistance is broken. Weston Price says that " Dental infections, while potentially harmful, may not be causing apparent or serious injury until the individual is subjected to some other overload, at which time a serious break may come. The chief contributing overloads are influenza, pregnancy, lactation, malnutrition, exposure, grief, worry, fear, heredity and age."

The whole question of assessing the importance of dental sepsis in an individual rests upon estimating his resistance to infection. Price says that " Infection is a relative matter, and quantity and danger are both related to defence, which defence may vary from high to exceedingly low."

The dental surgeon is placed in a very difficult position, as there is no doubt that most young persons have a resistance high enough to withstand a considerable amount of toxic absorption from the

teeth; devitalised teeth have lasted for years, but one never knows when, and to whom, the insidious infection will cause a serious flare-up. Daland states that primary foci of infection are most frequently found in the head, and that "after forty years of age the teeth or gums are the most frequent seat of the primary focus of infection." The age of forty can therefore be described as the "critical age," the age when most diseases of focal origin manifest themselves and when digestive disturbances commence.

We have mentioned the existence of two main types of dental sepsis, "open" and "closed," and pointed out that whereas open sepsis pours its toxins into the mouth, closed sepsis acts directly on the blood and lymph streams. To combat these two types of infection we have two types of resistance. For the closed sepsis the blood and lymph have special means of resisting infection, such as phagocytosis. In open sepsis toxins and bacteria enter the stomach, so that it is the stomach that has to kill the bacteria and detoxicate their products. This process has been described as the "gastric germicidal barrier." The stomach secretes hydrochloric acid, which kills the bacteria and neutralises their toxins, but if the stomach is irritated for years either by tobacco, alcohol, bolted food or swallowed sepsis its secretion becomes impeded and conditions such as dyspepsia and gastric ulcer intervene.

What is the importance of dental sepsis in these cases? There is no doubt that the condition is caused by continued swallowing of irritants and toxic products, but if all the teeth are removed other complications would arise associated with lack of teeth, insufficient mastication, and for a time inability to use dentures to their best advantage.

It is in these cases that conservative treatment should be undertaken if possible. Thorough scaling, elimination of pockets, if necessary by gingivectomy, and careful oral hygiene under the supervision of the dental surgeon will eliminate further production of toxic material. If it is impossible to free the patient from pockets or the tissues do not respond sufficiently to the treatment, then the only logical procedure is to remove the teeth.

In certain diseases, such as pernicious anæmia, Hurst states that achlorhydria is invariably present, and also very common in rheumatoid arthritis, so that since the "gastric germicidal barrier" is limited, no toxic substance can be tolerated. These cases must also be treated along the above lines. Further, any form of treatment of pernicious anæmia is quite useless in the presence of dental sepsis.

The importance of closed sepsis is more difficult to assess and more controversial. It deals in the main with the status of the pulpless tooth and again with the resistance of the patient. Concerning abscesses and infection about the roots of teeth, Caland states that they "frequently exist for months or years before detection, and it is probable that systemic infection occurs intermittently, depending upon varying degrees of natural or acquired susceptibility or immunity, or varying degrees of virulence of the micro-organisms."

Many authorities will not tolerate pulpless teeth, as they say no satisfactory method of keeping them free from infection for any length of time has been devised.

Apicectomy has been performed on the teeth as far back as the first permanent molars, but most authorities agree that the operation is only practical when the upper front teeth must be retained for æsthetic reasons. Some authorities doubt even the success of apicectomy, but Herbert recently published a report of cases on whom he had performed apicectomy and subsequently examined bacteriologically. His results are most encouraging, and show that in nearly every instance the apical areas were found to be sterile.

Bulleid stresses the importance of removing all dental sepsis if a patient is to undergo any major surgical procedure; he even suggests that sometimes it is better to render a patient edentulous, but at any rate all pulpless teeth must be removed as they so frequently show signs of infection after an operation.

Care should be taken not to remove too many teeth at one time for patients with poor resistance. It must be remembered that a bacteræmia is produced which normally is only transient, but if this precaution is not taken serious harm is done to the patient, from which he will not recover.

We may end this thesis with the conclusions of Hatton, who says that, "Individuals suffering from asthma, those subject to severe allergic reactions, those with a bad family history with respect to arthritis, heart disease, and other degenerative diseases of a similar character, and those in the early phases of secondary chronic focal infection, usually call for the most thorough elimination of mouth infection. The reason for this decision is based largely on the assumption that the resistance of this type of individual to bacterial infection and its consequences is low, and that each additional focus of infection, whether primary or secondary, adds to the burden to be carried."

A Short Textbook of Surgery. By C. F. W. ILLINGWORTH. Published by Messrs. J. & A. Churchill, Ltd. Pp. 702, 8 Plates and 179 Figures. *Price* 21*s.*

"ILLINGWORTH and Dick's Surgical Pathology" is so highly esteemed at Guy's that the publication of this book of clinical surgery is an event of great interest to students and teachers alike.

We wonder at the recent popularity of short surgical textbooks. Is it symptomatic of the greater number of students or of their lesser interest in their work? Perhaps the modern student has a brain so active that it can grasp 90 per cent. of the facts contained in a short book as readily as half the contents of a larger volume; or it may be that the increasing importance of the "ancillary sciences" is crowding surgery out of the curriculum. However, there is no doubt that these books are in great demand, and before discussing Mr. Illingworth's book in particular we must conduct a general inquiry into the functions of short surgical textbooks and then decide whether this book is adequate as judged by our ideal.

In our view there are only two possible uses for a short surgical textbook. It may be written as an introduction to clinical surgery and present an outline of surgical principles and methods, and a brief description of some of the commoner diseases and pathological processes. Such a book is intended to preserve the tyro's sense of proportion and enable him to tackle the larger manuals intelligently and with profit. We should welcome a new book of this kind.

The other type of short book subserves a baser function. Its object is to enable the uninterested or lazy student to pass his surgery Finals with a minimum of effort, and it will appeal to the undergraduate who has already specialised (in his own mind) in some other branch of medicine. Let us be quite clear about this: a book of this sort cannot appeal to the man who is interested in surgery for there is little room for the why's and how's and no space for the doubts and theories which are so stimulating to the inquiring mind—such a one will turn instinctively to the larger works and original papers.

This type of book must contain all that is necessary to enable the potential candidate to satisfy his examiner. There are certain branches of surgery which are popular with examiners, and the reader of these books has the right to expect that these shall be dealt with carefully and from his own angle. There is an implied contract: the student buys the book, reads it and believes that he is reading the truth; in return he expects to be told the truth and to pass his examination if he can reproduce what he has read.

Mr. Illingworth's book falls into the second category, and we will now examine it from the point of view of its potential public, as defined above.

The book is short and well bound, the arrangement is good and the illustrations well chosen. The eight plates of radiographs are excellent. Our criticism concerns the text alone. Important subjects are often passed over too briefly, and many statements are not in accord with current London teaching. The author states in his preface: "I must confess a lack of experience in certain special branches of surgery, which will doubtless be reflected in the chapters devoted to those subjects. However, I hope to have made the book suitable for the general reader; as for the specialties, the most I can hope for is that my neurology will satisfy the urologists, my gynæcology the orthopædists." The author apparently fails to realise that his general reader is a trusting student who has great faith in the written word and whose ambition is to satisfy his examiners.

We consider that the chapter on shock is inadequate, and that it should contain at least a

reference to recent experimental work and modern theories of causation.

There is practically no mention of subcutaneous nerve injuries. The author tells what to do when a nerve is divided completely or incompletely, but he does not give us the indications for exploratory operations.

We are told in the section on Pes Equinovarus that "the present-day view ascribes it to a developmental hypoplasia of the structures on the medial side of the foot." We doubt if this would go unchallenged by the majority of examiners in London.

In the section on strangulated hernia there is no discussion of the treatment of intestine of doubtful viability. The student always knows what to do with viable or non-viable intestine. The examiner is more prone to ask him about doubtful gut. This may be an academic point, but it touches the sole *raison d'etre* of the book. In the same section we are told that "a strangulated hernia must be treated by immediate operation under general or local anæsthesia." Surely a "spinal" is generally the anæsthetic of choice. Moreover the author does not describe the precautions which must be adopted when a general anæsthetic is administered to an obstructed patient to prevent him from inhaling his vomit.

There is a muddled discussion of the surgical treatment of duodenal ulcer without pyloric obstruction.

There is insufficient discussion of the treatment of carcinomas of the large intestine (a favourite examination question), and there is no mention of the performance of an exploratory laparotomy prior to excision of the rectum for cancer, nor is there any description of the criteria of operability. We are disappointed in the section on anal and rectal fistulæ and feel that it is time that Milligan and Morgan's (*Lancet*, 1934) teaching found its proper place in students' textbooks. The importance of excising rather than incising skin in the operative treatment of ischiorectal abscess and fistula is not stressed as it should be.

The Smith-Petersen pin is recommended for the treatment of pertrochanteric fractures of the femur, and a plaster spica is given as the alternative. Surely these cases are almost universally treated in extension.

We agree that there is much to be said for the treatment of oblique and spiral fractures of the tibia and fibula by continuous extension followed by a walking plaster, and we think that the Bohler frame is an admirable instrument. But this frame was not designed to be used as a splint for continuous extension, and we believe that its use in this way is dangerous and likely to cause gangrene of the leg from pressure on the popliteal vessels.

We have taken pains to indicate some of the faults of this book, not to condemn it out of hand, but because we feel that with careful editing and moderate enlargement it could be made into a really worth-while work.

Biology for Medical Students. By C. C. HENTSCHEL and W. R. IVIMEY COOK. Second Edition. Published by Messrs. Longmans. *Price* 18*s.*

MANY of the errors which mared the first edition of this book have now been corrected.

We are glad to see that the brain of the earthworm is now gotten into its rightful segment, and that the pancreas no longer *secretes erepsin.*

Some evidences of carelessness still remain. An account of reflex action is still called "The Neurone Theory," and we note that the nervous impulses still take their courage in both hands and jump from one neurone to another over a gap of unspecified dimensions.

On the plate depicting the rabbit's brain, the lateral lobe of the cerebellum is still called the flocculus, and the indication-line "r.f.," which plainly points to the rhinal fissure, is said to indicate the Sylvian.

The posterior intercostal veins still pass suavely into the vena cava. The ages of the chick embryos are still wrongly given.

A curious novelty is a plate showing "sexual" reproduction in the yeast-plant.

These mistakes are the more irritating because they tend to spoil a book in many ways so commendable. The planning is excellent and the popularity of the style is beyond question.

Manual of Tuberculosis. By E. ASHWORTH UNDERWOOD. Published by Messrs. E. & S. Livingstone. Pp. 404. *Price* 8*s.* 6*d.*

THIS excellent little book, which is intended for the use of nurses and public health workers, manages to cover, in the short space of some 400 pages, practically every aspect of tuberculosis, both surgical and medical. Epidemiology, public health, bacteriology, pathology, symptomatology, and treatment are all dealt with briefly but lucidly, and the author is equally at home with the problem of exogenous re-infection and the best method of cutting a sanatorium patient's toe-nails. His advice to nurses is sound and his views, on the whole,

balanced, though inevitably in a book of this size there must occasionally be a tendency to unjustifiable dogmatism. It is, however, only on minor points that one can find cause for dissent.

The print is clear, the text refreshingly free from misprints, and the illustrations adequate. The omissions are few, though *erythema nodosum* is not mentioned, which is surprising in view of the inclusion of an account of *erythema induratum*. The price is very reasonable.

We have no hesitation in strongly recommending this book, not only to those for whom it is primarily intended, but also to those medical students who would like a brief but accurate introduction to the study of tuberculosis.

Brompton Hospital Reports. Vol. VI, 1937. Published by the Research Department of the Hospital. Pp. 183. *Price* 2*s*. 6*d*.

AS is customary with these Reports, the majority of papers are reprints of articles published elsewhere during the year by members of the Brompton staff. There are, however, three original communications of interest, the first on Multiple Cystic Disease of the Lungs, by Dr. F. H. Young and Dr. Oswald, in which eleven new cases are reported. The authors attempt to correlate the findings into a clinical picture, which does not, however, seem very clear-cut. The diagnosis must continue to depend on the characteristic "soap-bubble" X-ray appearances. Dr. Young and Dr. Oswald put forward their belief that the cysts are congenital in origin and do not arise from the bronchi, a view which seems to be gaining ground among pathologists.

Mr. Belsey discusses Post-lobectomy Atelectasis of the remaining lobe, and is inclined to the view that a factor in the ætiology may be the performance of lipiodol bronchography for diagnostic purposes shortly before the operation.

The Registrars (Dr. Brooks and Dr. Lee Lander) contribute a study of 364 cases of senile phthisis, that is, cases in which the age of onset was from 50 to 82 years. A considerably higher incidence in males was noted, and the poor prognosis of this type of disease is emphasized by the fact that nearly one-third of the cases died within a year of the onset of symptoms, the great majority from their tuberculosis.

Among the reprints, most of which are papers or addresses of the text-book variety, is an interesting account by Dr. Scadding of three cases of what appeared to be a chronic diffuse bronchopneumonia, with clinical and radiological findings very suggestive of pulmonary tuberculosis, negatived at autopsy.

Not the least remarkable feature of these Reports is their price. How is it done?

Modern Treatment in General Practice, 1938. Edited by C. P. G. WAKELEY, D.Sc., F.R.C.S. Published by *The Medical Press and Circular*. Pp. 440. *Price* 10*s*. 6*d*.

THE fourth volume of this yearly publication maintains the standard of its predecessors. In addition, its scope has been somewhat widened by the inclusion of a number of chapters under the general heading of "Pitfalls in Diagnosis," in which the differential diagnosis of such complaints as "Constipation" and "Pain in the iliac fossa" are ably discussed. For the rest of the book, it follows well-known lines. A series of short articles each dealing with some common condition met with in practice and its treatment are contributed by various authors. These articles avoid the error of excessive erudition and contain, in general, sound general principles by which the practitioner may be guided in treatment.

Although little of the material provided would not be found on reference to a standard work on medicine or surgery, the volume under review gains much from the pleasant and direct manner of various clinical problems, and there must be few in practice who would not gain much valuable information from reading this book. It is, perhaps, more a link between the specialised physician or surgeon and the practitioner than between the "research worker and the average doctor," but is none the worse for that, and the view of the specialist on his speciality will be welcomed by many when presented in a somewhat more readable and interesting form than that attained by the average textbook, which often suffers from a numerically limited authorship.

X. Y. Z.

Diseases of Women. By TEN TEACHERS. Published by Messrs. E. Arnold & Co. Pp. 492. *Price* 18*s*.

THIS is the sixth edition of a book always popular, and steadily increasing in popularity. And rightly so, for the subject is presented in a logical straightforward manner and with an air of authority.

This authority is obtained by the method of writing. Each section is revised by one teacher, reviewed by another, and finally welded into form at a meeting of all ten. Thus we have a book that represents the carefully considered opinion of ten of the most eminent gynæcologists in London.

There are certain sections which must be especially commended. The anatomy of the supports of pelvic viscera is clarified in a way that no other book, either of anatomy or gynæcology, manages to accomplish.

The chapters on physiology and the disorders of menstruation have been completely rewritten to bring them into line with modern discoveries. The knowledge of menstruation is still very far from complete, but we can at least imitate the process with hormones, thus affording a working basis on which to build up theories, and the most adequate of these has been precisely put forth.

The section on neurasthenia and neurosis stands out also as a brilliant essay into the feminine psychology. One would like to see it read and understood by all who attempt the practice of medicine in any of its branches.

For the rest, suffice it to say that all is of a uniformly high standard of accuracy and simplicity. The diagrams are clear and helpful, but it is a very great pity that in a book of this merit the micro-photographs are not better. Unless these are reproduced very clearly it is far better to keep to accurate drawings.

In conclusion, this is a book that is to be thoroughly recommended both to the student for its directness and to the practitioner for its completeness.

H. A. H.

Neuro-Ophthalmology. By R. LINDSAY REA, F.R.C.S. Published by Messrs. William Heinemann, Ltd. Pp. 568. *Price* 42*s.*

SINCE the earliest times, the treatment of ailments of the eye has stood somewhat apart from the rest of medical practice. Only a few attempts have been made in the English-speaking countries to bring ophthalmology into relation with general medicine since the publication of Gower's "Medical Ophthalmology" in 1887. Consequently, the appearance of a new book on this subject is an event of some importance. (It is to be regretted, by the way, that the author should have found it necessary to use the term "neuro- ophthalmology" instead of "medical ophthalmology," which has been the accepted designation for this subject. The scope of this book does not seem to justify such a change.)

The prevailing defect of most medical writings of to-day are length and diffuseness, and the present book shows these shortcomings to a marked degree. By sifting the evidence more critically, by exercising a greater judgment in rejecting evidence and theories which are obviously erroneous and by reducing its size, this book would have been of much greater value to the "younger ophthalmic surgeons," for whom, as is pointed out in the preface, the book is intended.

But the most serious weakness of all is the lack of clinical perspective when neurological problems are discussed. Here are some of the statements, selected at random, which surely cannot be allowed to remain unchallenged: (page 498) "Headache of persistent cerebral contusion is due to increased intracranial pressure"; (page 500) "If papillœdema is absent and the headache is occipital then disseminated sclerosis may be borne in mind"; (page 443) "If a child is brought to the consulting room suffering from an internal squint, due to paralysis of one or both external recti, and if the presence of a swollen disc is discovered, the diagnosis may provisionally be taken as lead-poisoning."

The attempt to embody all the most recent and recondite advances, the allocation of much space to numerous syndromes of great rarity should, of course, be of advantage if this book is to be of use for reference purposes. However, its usefulness for this purpose is much reduced by the unsatisfactory arrangement of the material. The headings of many chapters are at variance with their contents, and much confusion is caused by a tendency to drift from subject to subject. The following is an example of loose and inconsequential arrangement of the material. An account, several pages in length, of the various forms of Parkinsonism is followed without any break by a paragraph which begins as follows (page 185): "There is a condition—encephalomyelitis—which may be associated with vaccination or measles," etc. This paragraph must have been added as an afterthought, since it is difficult to see in this arrangement any but a purely fortuitous explanation. The violation of all logical sequence is rendered even more culpable by the total omission of encephalo-myelitis from the index. Unfortunately, the book abounds in similar examples.

It probably is invidious to comment on any omissions by an author who has tried to render the book so comprehensive as even to include a description of the "unsteady gaze" of the paranoic. The subject of paralysis of extra ocular muscles is conventional and quite inadequate. There is practically no mention of the valuable work of A. Bielschowsky on the motor anomalies of the eyes. Again, far more space should have been devoted to clinical perimetry. The visual field changes in early glaucoma are not even mentioned.

In this book on neuro-ophthalmology there is too much "second-hand" neurology and not

enough relevant ophthalmology, a subject the author could have discussed with far greater authority. To-day when medical ophthalmology has reached such a degree of complexity, it may well be doubted if it is possible for one writer to cover the ground adequately.

S. B.

The Story of the Growth of Nursing. By AGNES PAVEY. Published by Messrs. Faber & Faber, Ltd. *Price* 15*s.*

MISS PAVEY is to be congratulated on having produced one of the most interesting and readable of history books. It contains a good deal more than the history or growth of nursing. The author has clearly shown how the medical customs and literature of different races evolved from their intellectual development and social conditions. One realises the powerful influence that religion, superstition, wars and science have had upon the care of the sick. We are reminded that nothing is new. Among other intellectual achievements attributed to the Babylonians we are told they originated the decimal point—a source of much tribulation to many nurses to-day !

The teaching of Susruta, 800 B.C., may well be an inspiration to those teaching to-day : " He who is versed only in books will be alarmed and confused, like a coward on a battlefield, when in face of active disease. He who rashly engages in practice without previous study of written science is entitled to no respect from mankind, and merits punishment from the King ; but he who combines reading with experience proceeds safely and surely, like a chariot on two wheels." He warns his pupils against unintelligent repetition from books : the student who thus obtains his knowledge " is like an ass with a burden of sandal-wood, for he knoweth the weight, but not the value thereof."

In Part I, " An Art," the story begins with the dawn of history, and is carried through ancient civilisations to the fourth century B.C.

In Part II, " A Vocation," the period extends to about A.D. 1850 and deals with the influence of the Church, the Military Nursing Orders, Secular Nursing Orders and early hospitals.

Part III, " A Profession," begins with the work of Florence Nightingale and finishes with the work in progress to-day.

The Bibliography at the end gives some idea of the extent of the research undertaken and will also be useful to readers who wish to study more deeply any particular section.

As Sir John Weir says in a foreword, one marvels at the immense amount of study the writing of such a book has entailed, and one envies the author the pleasure it must have given her.

F. T.

Correspondence

Doctors and the Public

To the Editor of the GAZETTE

SIR,—Dr. Douthwaite's observations on patient and physician have their counterparts out here.

There is a Marathi proverb which, translated into English, would read " When the need is over, let the doctor die."

In Bujerati there is another similar one, " When the need is over, the doctor is the enemy."

Marathi is spoken " round about " Poona, and Bujerati in the Bombay area.

Yours faithfully,

W. BURRIDGE.

Lucknow.

Cowherds v. Obstetricians

To the Editor of the GAZETTE

SIR,—In the whole of medicine there is surely no subject more highly developed, both in its science and its art, than that of midwifery. And yet it is a remarkable fact that no one seems able to recognise the moment when a woman is about to begin her labour. No one is able to judge, before the " pains " have commenced, whether a labour be on the point of starting or still a fortnight away.

To a countryman this seems extraordinary. No self-respecting cowman fails to recognise that one of his herd is about to calve ; and if his animals have been running with the bull he has not even a calculation from dates to help him. One hears such remarks as : " Autumn Crocus seems about

ready. I'll bring her in to-night." And it is seldom that the precaution is not justified within an hour or two of the expected time. The shepherd shows a similar understanding. He has but few sheltered pens at his disposal. If he were to fail in picking out the ewes about to lamb he would suffer a heavy loss in lives from the unnecessary exposure.

For this identification it is not necessary that the birth process itself should have begun. The art of the shepherd, it is true, is to be acquired only with the years, but the cowman is able to base his predictions on a number of clear-cut physical signs.

During the last few days of pregnancy changes in the udder become accentuated to give a typical fullness and firm consistency, with pointing of the teats and possibility of the free expression of milk. Moreover, there is a rapidly increasing laxity in the joints of the "pelvis," as evidenced by an increased flabbiness that is visible when the animal moves, in the hollows on either side of the tope of the rump. At the same time there is a perceptible separation of the bony promontories on either side of the tail, the "pin-bones" of the farmer, which correspond, no doubt, with the ischial tuberosities in the human pelvis. The final hours before the onset of labour are marked by a rapid increase in this general laxity, together with a loose swelling and parting of the vulva. Be it noted that labour has not yet begun.

These manifestations, tempered by his own judgment, leave the cowman in no doubt as to the approximate hour of parturition. He is all the more surprised, therefore, to find himself, after his wife has been taken to the local hospital with the assurance that she is about to give birth, forced to await for a month the arrival of a normal son and heir.

Such was an actual experience. There is no reason to suppose in this instance that any abnormality was being treated. Indeed, it is permissible to assume that the whole incident was the simple result of a slavish reliance on dates. In this it was by no means unusual.

Who can doubt that primitive man knew very well when his mate became about to justify their connubial expectations? And that without any reference to his notched-tree calendar.

The cow cannot tell us how she feels, and yet she possesses few secrets that are not shared by those who look after her. Subjective evidence from his patient is available to increase the doctor's advantage. Is there not scope for him to rival the cowman and the shepherd on his own ground and build up a similar prescience from clinical observation?

Yours, etc.,

I. McD. STEWART.

Guy's Hospital,
S.E.1.

Guy's '89 Club

To the Editor of the GAZETTE

SIR,—The Guy's '89 Club is holding its 42nd Dinner at the Trocadero on Wednesday, May 11th, at 7.30 p.m.

Will all members try and support Dr. J. C. Constable, who will be in the Chair?

Yours, etc.,

GERALD S. HOVENDEN.

99, Church Road,
Barnes, S.W.13.

Sport

Rugby

Guy's v. Old Whitgiftians

(*At South Croydon on Saturday, April* 2nd)

ALTHOUGH Guy's were well below full strength, they won an interesting game by a placed goal and 2 tries (11 points) to nil.

At the last moment the Hospital had difficulty in completing their team, but R. E. Luyt, of Oxford, very kindly came to their assistance and played with Babrow in the centre.

The match attracted a large attendance, and no doubt a number of the Old Boys' supporters present were keen to see their side repeat their victory of two years ago, but, although the Old Whitgiftians obtained possession in the majority of set scrums, their backs failed to take advantage of the many openings that came their way.

Babrow and Luyt were largely responsible for some magnificent tackling which prevented any movements from becoming dangerous, and time after time caught their opposite numbers in possession.

In the first half Guy's had to play up-hill, and, after the Old Boys had launched a strong forward attack, Guy's retaliated with a clever movement between Crawford, Babrow and Baxter. The latter ran strongly to the Old Whitgiftians' 25 and cross-kicked, but unfortunately the ball was knocked on when a try appeared certain.

A ding-dong struggle followed, and on one occasion Banner, their captain, managed to slip through, but fortunately Halamandres brought him down five yards from the line.

Guy's gradually transferred play to the other end and eventually penned the Old Boys in their 25. Attack after attack was launched until Babrow gave a perfect dummy and ran in for a try behind the posts, which Luyt converted. Just before half-time, Fletcher was injured in a forward rush, but he was able to resume and immediately led another attack, which compelled the home side to touch down.

After the interval Guy's increased their lead when Babrow made an opening for Baxter, and the latter scored an unconverted try.

The Old Boys rallied after this reverse, and their forwards gave Guy's several anxious moments; in one of their raids Birks was shaken up rather badly, but pluckily continued and played a sound game at full-back.

First Dunnage and then Bangs made attempts to drop a goal, and finally Bangs sent his wing away with a perfect pass, but just as he was going all out for the line he lost the ball and a fine opportunity went astray.

Guy's were hard pressed for several minutes, but suddenly they turned defence into a whirlwind attack. The forwards backed up each other magnificently, and finally they set the backs going with a splendid movement which ended in Babrow scoring another try, which was not converted.

Team.—C. Halamandres; A. B. Baxter, L. Babrow, R. E. Luyt, L. G. Morey; J. P. Crawford, P. H. Birks; J. P. Rochford, P. Fletcher, D. N. Fuller, A. Forbes, A. Bulstrode, R. O. Yerbury, H. H. Crabb (captain), P. D'O. Kolesar.

Fencing

On Saturday, March 12th, Guy's defeated the Borough Polytechnic in a three-weapon match fought on the Netball Court behind the Bacteriological Department. Guy's won both the foil and epée by narrow margins, but once again the Hospital sabre team completely eclipsed the opposition. Parfitt lost only one fight in nine, and was undefeated in foil and sabre.

The following represented the Hospital:—

Foil.—R. F. Parfitt, A. Lane-Roberts, N. Lucas.

Epée.—R. F. Parfitt, R. Hudson-Evans, D. Geddes Browne.

Sabre.—R. Hudson Evans, R. F. Parfitt, A. Lane-Roberts.

Result.—Guy's, 17 wins, 1 drawn; Borough Polytechnic, 9 wins, 1 drawn.

Hospital Information, etc.

Pass List

UNIVERSITY OF LONDON.

SECOND EXAMINATION FOR MEDICAL DEGREES.

PART I.

March, 1938.

S. H. Bochner
R. W. Booth
P. B. Counsell
F. K. Crittenden
D. G. Dixon
R. A. Gough
J. D. Grene
E. O. Hohn
D. H. King
B. Kustow
G. H. T. Lloyd
V. H. Martindale
P. B. Maxted
L. F. Miller
J. R. P. Murley
D. D. Rees
E. H. O. Smith
B. J. Stephens
S. D. Stock
G. F. Swann
C. H. Watts
D. H. J. Williams
T. R. Wooldridge

PART II.

March, 1938.

G. J. Amiel
C. Bucknall
J. E. Bulow
R. A. Craig
W. G. Cross
E. B. Dawe
R. A. Gill
J. C. Holman
H. P. Jones
H. M. R. Knight
H. A. Kreiser
G. E. McFall
J. S. Messenger
S. Muntarbhorn
K. W. N. Palmer
H. Rees
R. J. W. Rees
L. Rendell-Baker
R. E. Rewell
W. Sewell
R. J. Stanley
P. N. Swift
St. John M. A. Tolhurst
P. C. van der Westhuizen
J. Y. D. Wakeham
H. W. Wheate

CONJOINT BOARD.

March, 1938.

Chemistry.

T. M. Ball
G. R. Blackburn
S. E. Blockley
J. S. Breen-Turner
P. F. E. Brown
H. Cohen
T. H. Eustace
P. C. Gartrell
A. J. Hayward
D. R. Hone
G. G. Jackson
C. W. L. Jeanes
E. D. C. Jones
P. E. Mars
C. P. Murch
D. S. Nelson
M. F. H. Stobie
J. M. Thomas
N. J. Whelpton

Physics.

J. K. Argo
P. F. E. Brown
H. Cohen
C. H. Corsane
P. C. Gartrell
D. R. Hone
G. G. Jackson
C. W. L. Jeanes
F. H. Jowett
P. E. Mars
J. R. C. Matthews
J. M. Thomas
W. B. Sanders

Elementary Biology.

T. M. Ball
L. R. E. Bradford
P. F. E. Brown
D. R. Corless
J. H. Forrester
G. C. Fuller
E. Harvey
P. H. Holford
E. K. Hyde
C. W. L. Jeanes
P. Jones
J. E. Jones
P. E. Mars
W. L. Oakes
D. A. T. Payne
P. F. Pearson
N. A. Punt
B. H. Wilshere

FIRST EXAMINATION.

March, 1938.

Anatomy.

P. Baxter
D. P. Finnegan
M. F. Gallop
P. R. Green
D. S. Orr
G. W. Taylor

Physiology.

D. P. Finnegan
J. E. Gilbert
J. L. G. Hartley
J. T. M. C. Jenkins

Pharmacology.

F. R. Buckler
G. C. Bough
P. S. Clarke
M. F. Gallop
F. L. Ingram
N. A. St. C. Marley
L. E. Smith
E. A. Spouse
J. F. Swan
F. R. Turner
W. N. Vellacott.

Papers by Guy's Men

S. de Navasquez. Experimental symmetrical cortical necrosis of the kidneys produced by staphylococcus toxin: A study of the morbid anatomy and associated circulatory and biochemical changes. *J. Path. & Bact.*, 1938, xlvi, 47-65.

S. de Navasquez and H. A. Treble. A case of primary generalised amyloid disease with involvement of the nerves. *Brain*, 1938, lxi, 116-128.

J. Lewin Payne. Some notes concerning the jaws and the teeth of fishes. *Brit. Dent. J.*, 1938, lxiv, 357.

H. M. Worth. Radiographic appearances of variations within the normal. *Ibid.*, 370.

R. E. Smith. Pyrexia of uncertain origin. *Clin. J.*, 1938, lxvii, 144.

Richard W. B. Ellis. Infantile convulsions. *Pract.*, 1938, cxl, 407.

W. D. Doherty. Surgical emergencies in the genito-urinary system. *Pract.*, 1938, cxl, 461.

George W. Bray. Hay-fever and hay-asthma. *Post-Grad. Med. J.*, 1938, xiv, 110.

Changes of Address

T. T. Stamm, Esq., M.B., B S., F.R.C.S., 4 Harley Street, W.1. *Langham 1310.*

Appointments

Miss L. de la Court to be Matron of the East Surrey Hospital, Redhill, Surrey.

Engagement

WHEELER—FULLBROOK.—S. J. Wheeler, of the Royal Naval Hospital, Hong Kong, to Miss Fullbrook, of Shanghai.

Marriages

BARRACLOUGH—MOULTON.—On April 12th, 1938, at the Friends' Meeting House, Wakefield, Charles Brayshaw, younger son of Mr. and Mrs. Walter Barraclough, of Ilkley, to Winifred Elizabeth Gibson, only daughter of Mr. and Mrs. Percy A. Moulton, of Sandal, Wakefield.

VENNARD—WELLS.—On March 5th, 1938, at St. Peter's-upon-Cornhill Church, John Vennard to Agnes Victoria Wells.

Births

HOLMS.—On March 19th, 1938, at 27, Welbeck Street, W.1, to Lucette, wife of Selwyn Holms, L.D.S., R.C.S. (Eng.), H.D.D. (Edin.), of 69, Wimpole Street, W.1—a son.

HARTLEY.—On April 1st, 1938, at Alexandra Nursing Home, Twickenham, to Nan (née Stanley), wife of Christopher J. Hartley, L.D.S., R.C.S.—a daughter.

BIGBY.—On April 2nd, 1938, at Northlands House, Southampton, to Hilda Marian, wife of W. L. M. Bigby—a daughter.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

WHEN Medicine and Law meet the resultant mixture is likely to be a stimulating one with a piquancy generally denied to one or the other separately. Medico-legal problems often smack of the blood and thunder of schoolboy stories, and have so much in common with the detective fiction novel that they seem far removed from our ordinary course of duty, and rarely fail to rouse our interest. Rigor mortis, mummification and adipocere, with a dash of " certain organs " is a recipe palatable to both lay and professional mind. Forensic medicine spiced with its morbid detail interests us in a remote way ; rather in the same way that the thriller novel attracts us as being so far removed from the humdrum of everyday life. But there are less romantic and more common problems where the practice of medicine runs with the borders of the law which are apt to be nightmares to the doctor who has not only the welfare of his own patient at heart but also the safety of his own skin. These problems are admittedly rare, and so are not looked for and therefore not immediately apparent, but, worst of all, their rarity makes their proper solution difficult to decide to the doctor who has always two sides to consider. The average medical student has little time to devote to the better understanding of forensic medicine and is ill-equipped to face those circumstances that, improperly treated, may lead to legal entanglements in practice, with their devastating results.

The subject being then amusing and of real educational value we are pleased, nay proud, to set before you the first of a series of articles of medico-legal interest written specially for us by a prominent pathologist with special skill in this branch of medicine. Not only do we intend to amuse and educate you with this novelty, but we will pander to your baser instincts by offering a prize for what we consider to be the best solution returned to the Editor. You may imagine that we have no hesitation in offering these articles to our readers.

The replies, which may be written in any vein, will be judged by the Editor in collaboration with the author of the series. They may be written on any kind of paper, you need not head the envelope " Comp.," and you need not be a registered reader, though they must not exceed three hundred words. We reserve the right to publish any reply we receive and, of course, the Editors' decision is quite final. We could not be much more fair than that, could we ? By the way, the prize is one guinea.

THE rejuvenator boys are at it again. They deprecate the fact that we decline in strength as the years roll by, and if we are lucky we may live to a mere seventy odd. They would like to see the world peopled with millions of Peter Pans each with young ideas and old bones covered with prime young lamb, men of two hundred with the manners of children driving the youngsters of eighty mad with their robust health and firm grasp of the purse-strings. They want a headstrong world vigorous and outspoken in its contempt for the drooling effeminacies of more mature thought, and not cramped by the tremulous warning finger of old age. Every man must be a fine upstanding figure throughout life, glorying in his evergreen virility and presumably dropping dead in his springy tracks one day from cause or

causes unknown, each woman must be a perpetual thing of unwrinkled beauty, a maddening, tantalising sight until a sudden untimely death on the hunting field before the very eyes of her great grandson. Nobody must decline, everyone must of necessity die a rapid death.

This time the method of bestowing continual youth is to take the form hormone injections supplemented by incarceration in an ice chest for a few weeks, when the subject will be prised out as good as new and with a fresh lease of life. In the future patients complaining of old age will be parted from their loving relatives for a week or two only and be delivered back at the house encased in a block of ice, to be thawed out in front of the fire and given a warming drink. Deaf senility is a blessing that none will gain in this tremendous age of progress. Practitioners will thrive on a steadily increasing number of patients, their main worry being the advisability of investing in another refrigerator or a set of new ice picks.

We read that one ill-advised lady has already been given a course of treatment and has, it is alleged, weathered the storm and found herself much rejuvenated. We wish the inventors of this new method every success in their malicious joke.

▭

We attended a press luncheon to inaugurate the second phase of the Appeal, held on Tuesday, May the 3rd, in the Court Room. The Treasurer, Lord Nuffield, presided over a large gathering of representatives of London and provincial newspapers.

After an excellent lunch which cannot have failed to put all in the most sympathetic and co-operative mood, Lord Nuffield spoke of this critical period in the financial history of the Hospital, and hinted that wards would be closed if the position did not materially alter. He asked all present to help us as much as was in their power to make the Appeal a success. They were reminded of the tremendous power that they had to wield and the enormous extent to which our success depended on their goodwill and friendship.

Captain Eric Waley, O.B.E., Chairman of the Appeal Committee, then spoke of the needs of this great Hospital, and emphasized how important it was that the voluntary hospital system should not die, for the teaching hospitals of London held a position of importance in the scheme of medicine and in the lives of everyone which could not be replaced by any other institution. He asked the Press that they should advertise to the whole country and not to the Metropolis alone the dire need of Guy's, for this Hospital performed a service which was not bounded by any city wall and which the whole country had reason to be proud and grateful of in the past and, with their help, in the future, too, would alleviate human suffering.

The guests were given the opportunity to view the Hospital and see for themselves the hopeless inadequacy of some of its departments.

▭

It has come to our notice that the appeal for Flag Sellers on May 10th has not had the support it deserves. The organisers have asked us to make a final appeal to students of this Hospital to give their names as willing to spend even a few hours collecting for a cause that is near their heart. So far three hundred people have volunteered, but the required figure is nearer one thousand. Breakfast tickets to the value of one shilling are available for any of the specified Lyons' tea-shops in the event of collectors starting before 8.30 a.m.

▭

By arrangement with the Evelina Hospital for Sick Children, Southwark Bridge Road, S.E.1, six cots have been placed at the disposal of a research worker from Guy's Hospital for a specified period. He will be required to work in conjunction with the staff of the Evelina Hospital. Guy's men wishing to take advantage of these facilities should write to the Dean and enclose a statement of their purposed investigations.

▭

We understand that the new Pathological building will be officially opened on Thursday, June 23rd, at 3 p.m., by the Right Honourable the Earl of Athlone, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., C.M.G., D.S.O. We intend to publish a full description of the building in a future issue.

Lupus Erythematosus

A Clinical Lecture delivered at Guy's Hospital by Dr. L. Forman, M.D., M.R.C.P.

Gentlemen,—I had desired to discuss Lupus Erythematosus because it is a fairly common skin disease and one easy to recognise when the salient points are remembered, and it is fairly amenable to treatment. Further, there has been a considerable amount of recent work which suggests that lupus erythematosus is but a cutaneous localisation of a disease which may produce general systemic vascular change.

There are two main clinical types : the erythe-

matous and superficial lupus erythematosus, which, when it is very widespread, is given the term of " exanthematous," and a second type—the fixed localised variety. The minute description of the lesion would apply to both varieties. The clinical appearances vary according to the degree of inflammatory infiltration, on which will depend the extent of atrophy which accompanies healing. Thus the lesion of lupus erythematosus is a fixed erythematous plaque which, when examined with a lens, will show numerous telangiectases. It is finely scaling, the scale being white and fairly firmly attached, so that an attempt to remove the scale may result in bleeding. There is often a horny plug in the mouths of the follicles—that is to say, there is a hyperkeratosis or an increase of the horny layer both in the skin and in the mouth of the follicle. When the scale is removed a follicular plug is often detached, showing as a small projection from the under surface of the scale. When numerous follicular plugs are attached in this way, the scale merits the term of a " carpet tack scale," suggesting the appearance of a carpet which has been pulled up with its tacks still attached and showing through.

In the more chronic types there is accompanying atrophy and scarring of the skin.

The eruption of lupus erythematosus is usually on exposed parts, that is to say light is a definite factor in the production of the lesion. Areas of vascular stasis are frequently attacked; hence the sites of election of lupus erythematosus are as follows :—

The cheeks over the malar regions.

The bridge of the nose (the two together forming the " Butterfly Area ").

The free edge of the ears.

The dorsal aspects of the ends of the fingers.

Exposed " V " of the chest in women.

In the severe acute type the whole of the face may be involved, the backs of the hands and forearms, the exposed part of the chest in women, and the trunk.

Lupus erythematosus is not a grossly destructive disease, but in the chronic fixed type there may be atrophy of the skin round the end of the nose giving this organ a pinched look, and also producing loss of substance of the lobes of the ears. When the disease affects the scalp, atrophy of the skin and of the hair bulbs gives rise to an area of baldness. The mucous membranes are not infrequently affected, as a rule in conjunction with disease of the skin. Thus the red of the lips shows the same erythema and scaliness described above, and the mucous membrane of the cheeks shows patches of leukoplakia within which the mucous membrane appears red and atrophied. However, this central area frequently reveals pin-point leukoplakic dots which could be compared with the follicular plugs in the skin. Sometimes superficial ulceration occurs in these atrophic areas.

The tongue may show similar changes.

There are several factors known to favour the appearance of this rash or its spread. Thus many patients give a history of having been sunburnt at the seaside and they have noticed several red patches remaining, showing characteristics of lupus erythematosus. Similarly, exposure to extreme cold may have the same effect. I have seen erysipelas of the skin of the face when it subsides, leave a patch of persistent erythema, which is later recognised as being lupus erythematosus, and this observation has been frequently reported in the literature. Again, after acute infection of the throat or sinuses, patches of lupus erythematosus may make their appearance.

The pathology of the skin lesions in both the superficial and the more fixed infiltrated type shows the same changes, thus there is in the middle of the corium, capillary dilatation with a surrounding dense cuff of lymphocytes. The corium is œdematous with destruction of elastic tissue, followed in the more chronic cases by a sclerotic process. The epidermis is œdematous. There is a hyperkeratosis or thickening of the horny layer.

However, there has been considerable discussion as to whether the superficial widespread type of lupus erythematosus is the same disease as that represented by the chronic fixed sclerotic patches. There is good reason to believe there are merely clinical variants of the same disorder. Thus very often superficial erythematous patches have been observed to become chronic, more infiltrated, to undergo atrophy. Further, in some cases in which there have been a few chronic patches of lupus erythematosus there may suddenly develop widespread superficial areas of the same disease. This change is particularly apt to occur when the original patches are being irritated by sunlight or local applications, and sometimes when there has been an intercurrent acute streptococcal infection, or even after the injections of gold or of bismuth.

The conception of lupus erythematosus as a systemic disease with cutaneous manifestations is not a new one, but more recent pathological work has shown that there may be a widespread affection of small capillaries and arterioles. In many organs in the body extensive hyaline vascular thrombosis may be demonstrated microscopically in capillaries even when naked-eye changes in the affected organs are absent. In this constitutional disease it is said that the skin manifestations are secondary

and may be absent in the earliest stages. Further, such skin changes may be transitory and not reported by the patient. Thus a systemic disorder may accompany lupus erythematosus of the skin or may precede it or may follow the skin changes. For example, Keil reports the case of a girl, aged 24 years, who had lost weight and appetite for some months. She then developed a fever and acute lupus erythematosus, with anæmia, a white cell count of 3,000 per cubic millimetre, and granular casts in the urine. Later she contracted a septic throat and pneumonia with a high temperature and leucocytosis, and she died. At the post-mortem there was chronic tuberculosis of one apex and pneumonia.

Renal changes have been frequently observed with lupus erythematosus. The urine may show blood, hyaline and granular casts. Even when there are no gross post-mortem findings, microscopical examination may show hyaline thrombi in the vessels and thickened glomerular loops with thickening of the basement membrane of the glomeruli. There may be evidence after some time of renal failure with rise of blood pressure and retention of nitrogenous products in the blood, and death with uræmia. In some cases one might suggest that the vascular change accompanying lupus erythematosus is the cause of renal insufficiency, *e.g.*, where there is no history of acute nephritis or scarlet fever or other recognised causes of nephritis.

Purpura and thrombocytopænia have been reported in many cases of lupus erythematosus, particularly when of the widespread superficial type. There has been accompanying splenic enlargement. Diminution of the thrombocytes may be produced by damage to the bone marrow, by over-activity of the spleen, or thirdly, due to withdrawal of the thrombocytes owing to their being taken up in vascular thrombi which has been shown to be present in lupus erythematosus, probably secondary to capillary damage. Thus, Keil quotes a girl of 18 years who was admitted to hospital in 1922 suffering from epistaxis and bleeding gums and purpura. She was found to have a hæmaglobin of 65 per cent. and a white cell count of 18,000 per cubic millimetre. The thrombocytes were 20,000 per cubic millimetre, and she showed the other sign of an essential thrombocytopænia—the bleeding time prolonged, the clot failed to retract, and diminished capillary resistence. The spleen, which was enlarged clinically, was removed and found to be twice the normal size. After operation there was clinical improvement with cessation of the bleeding, and a normal thrombocyte count. In 1924 she developed lupus erythematosus of the face which had the characteristics of the fixed type, and she was treated with small doses of gold, with healing of the skin. In 1929 she was readmitted to the Hospital with œdema of the legs, pleurisy, and albumin and casts in the urine and blood urea of 60 milligrammes. She died in coma. Thus it would seem in this case that, although the skin lesions healed, the renal lesions were progressive and ultimately fatal. Templeton recorded three cases of fatal acute lupus erythematosus of the acute disseminated type where, during clinical improvement, the thrombocytes increased, but diminished again when the patient became worse.

Leucopænia has been frequently observed with lupus erythematosus, and may persist when the skin lesions have healed. Again, bilateral optic atrophy has been recorded, and has been ascribed to the associated vascular changes.

Patients with lupus erythematosus frequently have lung complications, for example, bronchitis and pneumonia. The peculiar vascular changes of lupus erythematosus have been observed in the lungs, and it is thought that this led to the local lowering of resistance to infection.

According to Keil, the capillaries of the *heart* show the same hyaline thrombi indicative of vascular change as the skin, kidneys or the lungs. There is a particular type of valvular and mural endocarditis associated with lupus erythematosus which has been described by Libman and Sachs.

It has to be said that the causation of lupus erythematosus is unknown. There are two theories which have been popular for many years. One, that it is a tuberculous manifestation (particularly the chronic fixed type of lupus erythematosus), and cases have been described with associated lupus vulgaris and papulo necrotic tuberculide. In my own experience, association of lupus erythematosus with any active tuberculous focus is uncommon. I have come across occasionally evidence of old tuberculosis, for example the scars of tuberculous glands, and old tuberculous joint lesions. There has recently been an example of acute lupus erythematosus in which the patient died with evidence suggestive of tuberculous infiltration of the lungs and mediastinum. She was a patient of Dr. Barber's, aged about 40, who had a widespread superficial lupus erythematosus. She was advised to go into hospital for investigation and treatment, but refused. A year later she was admitted to hospital gravely ill with a history that she had lost several stone in two months. There was a high temperature, pleural effusion and X-Ray areas of consolidation in the medial aspects of both lungs. It was not proved that the consolidation was tuberculous. The sputum and stools were negative, and the pleural fluid did not

contain any tubercle bacilli. However, on the Continent many cases of fatal lupus erythematosus have been found to have developed miliary tuberculosis. Keil states, however, that collecting over 100 post-mortem reports of lupus erythematosus, he could not determine a greater incidence of active tuberculosis than would be expected in a similar number of cases of patients dying with a debilitating disease. Secondly, in this country the the streptococcal theory of the causation of lupus erythematosus has been advocated by Barber. Certainly many patients developed an exacerbation of their disease following a streptococcal tonsillar or sinus infection, and some cases have benefited when septic foci are dealt with. One recent case of lupus erythematosus that was investigated by Dr. Koerner showed evidence of a recent streptococcal infection with a blood titre of 400 anti-streptolysin units. Probably, however, the truth is that lupus erythematosus is a disease of unknown origin affecting small blood vessels and the bone marrow and predisposing to infection, including tuberculous or streptococcal infection, and that this vascular change may be localised in a particular area of the skin by irritants such as sunlight or cold or infection.

The prognosis should be guarded in cases of superficial disseminated lupus erythematosus and should be looked upon as grave when it is widespread and associated with a febrile reaction—the "exanthematic" type. In the chronic fixed or localised type, however, the prognosis both as regards cure or subsequent relapse is considered to be good. It is perhaps difficult to talk of treatment of lupus erythematosus without skin manifestations, but it might be borne in mind that some systemic change of this nature may be present in young women who have anæmia and debility and loss of weight and fever.

However, these symptoms are found in common with many other chronic infections. All cases of lupus erythematosus should be watched and every effort made to preserve good general health. The diet should be generous with plenty of butter and fats and animal protein. Because of the incidence of capillary inflammation it would be logical to give Vitamin C, preferably in form of fresh lemons rather than the synthetic Vitamin C.

In the acute type, rest in bed is an essential, and should be prolonged until the eruption has subsided, the temperature is normal, and there are no hæmatological abnormalities. This may mean a period of three months or more.

With the localised and fixed type ambulatory treatment is the rule. In all cases I believe that a blood count should be done to exclude a leukopænia or thrombocytopænia, as a preliminary to treatment with heavy metals. Intra-muscular or intra-venous injections of gold will produce improvement or cure in about 40 per cent. of cases. It should be remembered, however, that gold is capable of producing capillary damage with purpura and leucopænia or thrombocytopænia as a result of bone-marrow damage. Gold may be retained in the body for many months and doses may be cumulative. In one case recorded by Keil hæmorrhagic phenomena occurred three weeks after the gold injections had been stopped. The tendency is to give the gold in doses much smaller than was originally advocated. Thus one commences with .01 of a gramme of Solganol B intra-muscularly, the amounts are increased to .1 gramme weekly. A total of 1 gramme in a course should not be exceeded. Bismuth intra-muscularly is a much safer drug to use, and it, too, can produce about 40 per cent. of improvement or cure. It does not have the same liability to toxic reactions. The only precaution is that a small vein is not entered when an intramuscular injection is made. This is easily avoided by inserting the needle unattached to the syringe and watching if any blood escapes. In one patient with widespread lupus erythematosus of the acute type associated with fever, splenic enlargement and renal disease, I have observed considerable improvement following the administration of Proseptasine ½ gramme three times a day for four days. The rash faded and the temperature fell to normal. However, this improvement has not been observed in other patients who have received similar treatment, and the drug has to be used with care because of its toxic potentialities, leucopænia and thrombocytopænia, for some cases of lupus erythematosus may already have a tendency to these complications.

Septic foci should be carefully looked for and removed, and patients particularly young females, should be warned against excessive fatigue and the necessity for adequate nutrition. Strong sunlight on the skin should be avoided, and the skin of the face should be protected by a cream containing tannic acid if the patient goes to the seaside, where the light may be intense.

REFERENCES

1. Keil, H.—*British Journal of Dermatology and Syphilis*, 1937, Vol. xlix, No. 5.
2. Templeton, H. J.—*Arch. of Derm. and Syph.*, 1934, xxix, page 700.

Some Common Ailments

A Clinical Lecture by Sir Harley Wimpole, M.A. (Andaman), S.Sc. (Perim), M.D. (Tristan d'Acunha), Hon. LL.D. (Spitzbergen), L.S.A. (London).

(Under the Auspices of the Neo-Post-Graduate Brotherhood)

GENTLEMEN,—Now that you have become legally qualified members of our great profession, it is my duty to inform you that not all the ailments you may be called upon to treat will be found in current textbooks on Medicine; and it is about one of these that I want to talk to you to-day in this, the Inaugural Lecture of the series.

I refer to the condition known as *Starvatio Nocturnus*. You may search your textbooks and the Proceedings of Learned Societies in vain for an account of this disease; and it is to remedy this omission that I have chosen it as the subject of to-day's lecture. Because of an honourably kept gentlemen's agreement this disease is never mentioned in examinations. The account that I shall set before you is based upon a study and analysis of the literature, and I trust you may find it both useful and interesting.

Let us start first of all with the Ætiology, for the name of the condition is sufficiently descriptive of its nature.

It affects the sexes equally. Cases must have been reported in sucklings, but if they are vulnerable to attack—and I see no reason to doubt it—we can ignore them. Their earning capacity is precisely nil, and I would like to impress upon you that, as a rule, it only attacks people who have to work for their living; or rather it is only in such people that it need be given serious consideration. I do not think I shall be overstating the facts if I say that it was specially discovered for this class, the members of which have been referred to as "Daily-Breaders." Quite fortuitously, women of marriageable age with active matrimonial intentions are also said to be liable.

It attacks unmarried females with dependants, whether employed as typists, clerks, secretaries, saleswomen or manageresses in every kind of business. Married men with wives and families to support and engaged couples are equally liable, whether they are foremen, commercial travellers, salesmen, agents for vacuum-cleaners, secretaries of companies, works-managers or skilled workmen. It is not specially an occupational disease, for it occurs in persons of all occupations. Rather should it be regarded as a "class disease," being essentially an affection of the wage-earning classes.

It is never seen in the wealthy. No case has ever been reported in a millionaire, although in some respects it bears a clinical resemblance to the condition known as "the morning after." It is not unlike the syndrome often observed in habitués of night-clubs, and it is possible that further research may prove the two conditions to be identical.

The Pathology of the disease is rather anomalous. Sufferers have normal appetites, enjoy their food, and do not suffer from any known form of dyspepsia, although dyspepsia may co-exist. The most careful investigation entirely fails to reveal any indication of hypoglycæmia, either by night or day. There is no clinical or chemical evidence of ketosis. Examination of both blood and urine shows absence of ketone bodies. In this connection it should be borne in mind that the class chiefly affected have frequent recourse to aspirin, therefore the ferric chloride test is almost invariably misleading and useless, unless the patient has been on an aspirin-free diet for several days—when the result is usually negative. Recovery being the rule, nothing is known of the post-mortem appearances.

As regards the *Symptoms*, they are said to be constant and consistent, although the manifestations to which the symptoms give rise vary according to the nature of the patient's occupation, as will be shown later.

The following tables, compiled from a series of cases of unknown number, will be informative :—

TABLE A
Both Sexes

Sleeps well but wakes tired	100 per cent.
Disinclination for work	100 ,,
Forgetfulness or error at work	100 ,,
Lack of interest in surroundings	100 ,,
Worried looks and wrinkled brows	100 ,,

TABLE B
Females

Irritability and temper	100 ,,
Scragginess	100 ,,
Lined and aged appearance	100 ,,
Slovenly attire	100 ,,
Disinclination for pleasure or enjoyment	100 ,,
Unsociability	100 ,,
Abolition of S.A.	100 ,,

So much for the clinical manifestations, the remote effects of which depend chiefly on the

occupation of sufferers. Unsatisfactory performance of work is indicated by mistakes in spelling or arithmetical calculation, putting letters into wrong envelopes, inability to read own shorthand notes, incorrect charges to customers resulting in loss to firm, falling-off in firm's revenue due to patient's diminished efforts, mistakes in workshop causing damage or waste of material—in fact, anything and everything likely to jeopardise employment, cause reduction of salary and lowering of status; but *never* (strange to relate) actual dismissal. This last fact is particularly noteworthy, for sufferers appear to have a remarkable instinct for choosing doctors who are able to make an instant diagnosis.

Treatment always appears to be successful and, strangest of all, recovery is almost always followed by increase of pay, promotion to managing director, successful marriage or restoration of marital bliss, and outstanding social success.

Thus, strangely enough, it appears to confer ultimate good fortune on its victims—but only after proper treatment, of course.

I have carefully refrained from going into the history of these cases from the standpoint of differential diagnosis, to attempt which would jeopardise the subsequent material and social success of the patients. It would be very disconcerting to find, for example, that the patient was a night-watchman, or that he (or she) spent every available evening at a night-club in the pursuit of pleasure, winding up at 3 a.m. with a hearty meal of kipper or eggs and bacon, as so many of them do. The elicitation of such facts would be entirely destructive of the fundamental hypothesis upon which the separate clinical entity of the disease depends.

The correct procedure is to listen to the doleful catalogue of symptoms, and immediately any of those previously enumerated are mentioned, sit back in your chair, assume a wise smile (with your stethoscope dangling from your neck), put the tips of your fingers together and say, "Ha, Starvatio nocturnus!" Like that.

The treatment is too well-known to require any description of mine, and it should be begun at once. Progress towards recovery will be indicated by progressive increase of salary, and when the patient is appointed a managing director it is safe to assume that the cure is complete.

In my later lectures I hope to deal with *Odor Corporis*, or "B.O.," as it is called, *Derma Cosmetica*, and the newly discovered "Muffled Pinking" (*Percussio occultatus*).

That will be all for this time, gentlemen.

What Do You Think?

No. 1

The first of a new series of articles on medico-legal problems.

DR. X was called out one evening to attend a much-respected old lady who had suddenly fallen ill. Examination quickly revealed that the old dear had pneumonia, and the question arose who should give her the nursing attentions she required. She immediately thought of her own daughter, who was a qualified doctor—we will call her Dr. A—and on the following day this young lady, who was unmarried and therefore had no home ties of her own, came down to stay at the house.

Two days later Dr. X was called in again "rather urgently," and to his surprise found, on his arrival, that his patient on this occasion was the young Dr. A. Dr. A looked a little sheepish, said she very much regretted calling him in under such circumstances, but, as a matter of fact, she had had an abortion; yes, it was true she was unmarried, but—well, Dr. X, who was quiet but wise in his way, did not worry her further with the details. To his surprise, however, she suddenly blurted out that she herself was responsible, with the assistance of a nurse whom she had called in to assist her with her mother, for the procedure of inducing this abortion.

Dr. X kept his peace and confined the knowledge which had come his way to himself. Unfortunately the daughter became infected and she died; no doubt could exist from the facts, as known by Dr. X and the nurse, but that both Dr. A, now dead, and the nurse were guilty of a criminal procedure. Looking up his forensic medicine book he found that "every woman who with child . . . or whosoever, with intent to procure the miscarriage of any woman . . . shall unlawfully administer any poison or noxious thing, or shall unlawfully use any instrument or any other means with the like intent . . . shall be guilty of felony. It was punishable by penal servitude for life, or any term not less than three years. He just had not thought of it as such a serious offence in the eyes of the law until this particular case had forced itself upon him. He was in possession of facts relating to two persons, one now dead, showing them to have been guilty of this serious felony. And, what was worse, the nurse, a qualified woman in practice in his own town, survivor, with this death "on her hands," properly chargeable with

murder if the facts became known, for a death consequent upon criminal abortion is murder.

Supposing the nurse, who also knew that he, Dr. X, knew, should confess, or, worse still, approach him begging him to keep his awful knowledge to himself. What should Dr. X do?

What do *you* think?

(We offer a prize of one guinea to the sender of the best answer—not exceeding 300 words—received before May 14th. For the conditions of the competition, see "Passim."—Ed.)

"The Shining Hour"

THE Wimps are not female imps—nor are they the feminine branch of the Junior Imperial League. They are, we have ascertained at enormous trouble, an Amateur Dramatic Society, most of whose members dwell in the purlieus of Wimpole Street. They provide amusement for themselves and excellent entertainment for their friends, and by so doing gather a modest harvest for worthy institutions, not least amongst which may be numbered Guy's.

On Tuesday and Wednesday, April 12th and 13th, the Wimps presented Keith Winter's "The Shining Hour" at Rudolf Steiner Hall, and for two and a quarter hours we were vastly entertained by Miss Elizabeth Williams' production.

This play has been too recent a West End success for any account of the plot to be necessary. In this family play Mr. Peter Hilton made a dashing and debonair Henry Linden, whose manic-depressive psychosis was almost credible.

The exotic Mariella Linden was well played by Miss Emily Williams aided by a surprising resemblance to an actress who had better remain nameless. Full marks must go to the bitter-tongued virgin Hannah Linden, played by Miss Margaret Wherry.

Mr. Francis Mann made the most of the adolescent Micky Linden, while Mr. Geoffrey Hooper out-prigged the outposts of Empire as David Linden.

Miss Jean Mollison, as the ill-fated July Linden, gave such a charming performance that we were sorry that she had to die at the end of Act II.

Altogether a most praiseworthy performance. For us the only disappointment was our inability to induce the Senior Surgeon to race us to "The Volunteer" and back during one of the intervals.

McF.

Correspondence

"A Short Textbook of Surgery"

To the Editor of the GAZETTE

SIR,—It would be a pity if your review of Mr. C. F. Illingworth's "A Short Textbook of Surgery" (Churchill) were allowed to pass without further comment—a pity because the book deserves a better review than you gave it, and, above all, because the grounds on which it was condemned warrant examination.

Mr. Illingworth has attempted to fill a demand which still exists for an up-to-date account of British surgical practice, contained within a single volume of convenient size, which shall at the same time be comprehensive and balanced. Such a work must not be either a synopsis or a tome of reference. I know of no other surgical textbook which does not approximate more closely to the one or the other than this, and both types of book for the student preparing for examination can be equally pernicious.

"A Short Textbook of Surgery" is not perfect; I agree that the very high expectations, natural of the co-author of "Surgical Pathology," are not fully realised. It is, however, my contention that in the absence of a perfect model of comprehension, balance and concision, it should be of real value to the student who chooses to read it completely in his preparation for an examination. Supplementary reading on individual subjects of interest and importance would remain essential. Its study should avoid the specious slickness that comes from synopses and the confusion which can follow attempts to absorb rapidly two volumes or more of other standard works.

To turn to the particular. It is now necessary to explain why when you chose to discredit the book by example from it the review is definitely misleading.

Thus regarding *Pes equino-varus* you tell us solely that it is ascribed in the book to a hypoplasia of the structures on the medial side of the foot, and add that this statement would scarcely go unchallenged in a London examination.

Indeed you quote the statement, but out of its context, where in the section on congenital equino-varus it follows mention of malposition in utero and increased intra-uterine pressure; in the next section the common causes and principles of treatment of acquired equino-varus are discussed.

Again you castigate the author for not stressing the importance of excising skin in the drainage of ischio-rectal abscesses. This refinement of treatment is based on the same principle as drainage by a wide cruciate incision with packing of the wound, and it is this treatment which is advocated in the book. Both aim at the avoidance of fistula by permitting healing to take place by granulation from below. You word your review to imply that simple incision was described in the book. Similarly, the treatment given for fistula-in-ano is that, where compatible with retention of anal continence, the tracts should, after complete exploration, be laid open and packed. I know of no treatment for this condition primarily associated with the names of Milliken and Morgan, although in the very excellent article which you quote and the absence of whose contents you deplore, there is a far greater degree of detail and anatomical particularity than is either necessary or desirable in a book of this sort. You complain, regarding strangulated herniæ, that " there is no discussion on the treatment of intestine of doubtful viability." Gut, it is there advised, which presents certain negative and positive features (given correctly) should be regarded as non-viable, and treated by resection with restoration of continuity, or by exteriorisation, according to circumstance (again given). This might appear to some to be an adequate, if brief, account of correct procedure. To complain further that the precautions in the conduct of a general anæsthetic to such patients are omitted is scarcely fair. Is it demanded of the book that within its limited confines it should serve as well the function of a textbook on anæsthetics? Such questions, too, are designed in examinations to test the candidate's practical experience; their inclusion in a general survey can only encourage the impression that books can replace ward work; they are outside the scope of this book.

Nor can I see that your misquotation from the preface strengthens your criticism of the text.

I apologise for so long a letter, and in extenuation would plead that, had the review been a simple expression of your opinion that the book was a poor one, any airing of my counter-opinion against yours could not influence the balance.

It is the definite distortion which occurs from your method of quotation which I have felt should not pass without contradiction.

Yours, etc.,

POMPONIUS EGO.

Guy's Hospital,
S.E.1.

Cowherds and Obstetricians

To the Editor of the GAZETTE

SIR,—Mr. Stewart's stimulating letter about the way in which the cowherd outstrips the obstetrician was indeed a challenge which I burn to answer.

True, I cannot speak as an experienced obstetrician. But then Mr. Stewart is, I believe, not himself a cowherd.

He asks whether there is not scope for the doctor to rival the cowman in his prescience of the onset of labour. To this the answer is that scope there may be; opportunity there certainly is not.

Unlike that of the placid herdsman, the task of the obstetrician is not the constant following of his flock. It is instead the conduct of a single, although important, course of events in the life of each of his separate patients.

He cannot be always at the side of each of his pregnant charges—accompanying the leisured to their theatres or cocktail parties, the poor to their " charring " or housework, during the early months to accustom his eye to their normal appearance.

But the cowman's life is one long round of contemplating his own particular cows. No obstetrician would be thanked were he to demand that his patient parade to and fro before him naked, as her hour approached, that his keen eye might perceive the " flabbiness in the hollows on either side of the tope of her rump." I am grateful to Mr. Stewart for that delicious phrase.

He mentioned changes in the cow's udder, which occur only on the eve of parturition. Comparable changes in the human breast have, I believe, a far less definite time relationship.

So our doctor will have to concentrate on the pelvis and soft parts to verify the herdsman's physical signs. And that is going to make things very difficult for him. It is not always easy for the doctor to persuade the expectant mother to submit to such ante-natal care and regular examinations as he knows are necessary. But it is at present a frank impossibility for him to gain the same opportunities for observing her that a cowherd normally enjoys where his cows are concerned.

It would seem, then, that some practical step must be taken to confer such opportunities upon the obstetrician.

Such a step would be the provision of an entirely new kind of maternity hospital. This

must consist of an expanse of spacious moorland, on one of whose grassy slopes the obstetrician may sit day by day, while all around him those of his patients who have reached the last three months of their pregnancy gambol or browse, quite unclad.

Apart from the advance that would, no doubt, be made in obstetrics by such methods, art, too, would benefit. That almost hackneyed theme of poet and painter, "Faun regarding wood nymphs," could give place to the modern scene, "Doctor observing Dames." The touch of animated nudity, so often sought, would be common to both.

And, above all, the obstetrician would at least start level with the cowherd.

I dedicate the idea to Mr. Stewart—in gratitude.

Yours, etc.,

D. STAFFORD-CLARK.

The Old Summer House,
Burnt Ash Lane,
Bromley, Kent.

Sport

Hockey

FOLKESTONE HOCKEY FESTIVAL

A TEAM representing the Hospital participated for the first time in this major Hockey Festival at Easter. About thirty teams took part, each team playing three matches on the perfect grounds of the Kent County Cricket Club. Better grounds could not have been possible, and, as befits the occasion, some of the hockey was brilliant, particularly that on the part of the Blue Devils (*Les Diables Bleu*) from France. The match between this team and the Bacchanalians from Ireland was a classic, well worth enduring a bitterly cold wind to watch.

It cannot be said that our baptism at Folkestone (from the hockey point of view) was as successful as we could have wished, for only one match was won out of three.

Results.—

Friday April 15th, *v.* Pigeons, won 4—2.

Saturday, April 16th, *v.* Anglo-Indian Hockey Club, lost 1—6.

Monday, April 18th, *v.* Metropolitan Police College, lost 0—2.

In our first match against the Pigeons, a team from the Midlands, we played our best game, and ran out easy winners by four goals to two. The forwards surprised even themselves by playing a very fast and open game, with some excellent combination, possibly due to the remarkable accuracy of the ground, and it was only on the run of the play that the Hospital quickly gained a lead of two goals from penalty corners. A penalty bully was conceded by E. J. A. Needham, who, after playing a very pretty piece of rugby with the opposing centre-forward, attempted an extremely false bully, forgetting that, in spite of his immense backage, an umpire behind him could still see something. The Hospital continued on the offensive after half-time, and scored two more goals, one from a short corner.

J. B. Franklin sustained a badly cut lip fifteen minutes from the end and had to retire. The Pigeons obtained another goal during this last period, but we had the game well in hand, and ended this excellent game on the attack.

The match on Saturday morning against the Anglo-Indians resulted in the biggest defeat the Hospital has sustained this season. The Anglo-Indian Hockey Club is a newly formed team, consisting of English and Indian players, all trained on those sun-baked pitches of India, and they certainly showed that exactness and precision of stickwork which characterises Indian teams. It has been predicted that this hockey club will be very well known in a few seasons.

The Hospital attacked at the start, and the forwards missed numerous easy chances in the opening minutes. We were unlucky to be 2—0 down at half-time, since the game was territorially equal, and we might well have been ahead had our forwards shot at all well. After the interval, however, the Anglo-Indians were on top most of the time, and excellent play coupled with lax marking on the part of our defence enabled them to score four quick goals. Our only goal came from Martin, who followed up a penalty corner. With the utmost sincerity it can be said that a 6—1 victory flattered the winners, and we are looking forward to avenging this defeat next season.

After much golf, the match against the Metropolitan Police College on Monday was rather scrappy. The Police College are old friends, and earlier in the season we beat them in an excellent game. We were hoping to beat them again at Folkestone, but after a most enjoyable, rather than fast game, they ran out winners by two goals to nil. The Police scored once in each half, the Hospital also having a number of chances of

scoring, which were not accepted. Little of particular interest happened in this game, a game which was so even that the result was in doubt right up to the final whistle.

The following represented the Hospital at Folkestone: E. J. A. Needham; J. S. Astbury, T. C. Thorne; J. A. Leeming, E. Smith, H. A. Buck; A. C. Greene, H. P. Merrick, J. B. Franklin (captain), D. A. Hamilton, G. C. Bough, S. G. McCallin, E. J. Martin.

Apart from the hockey, the Festival was a success in every respect. The official Hockey Dinner and Dances were attended, and were much enjoyed, except that the male contingent was rather strong in each case. Our memories cannot be dimmed about certain happenings at Folkestone. Can we forget our "hotel," its "sober" manager and his easily aggravated wife? Only those who were at Folkestone can understand how near eightpence (or was it eightpence farthing?) came to wrecking our stay, while the stay (if not the life) of Mr. —— was nearly terminated when he was found using a throat torch at 3 a.m. in Room 11. The secretary learned a much needed lesson in tact from the manager of a certain Folkestone restaurant on the first evening, which stood him in good stead for the remainder of the tour. Mr. T. C. Thorne's golf and billiards can never be surpassed, while Mr. S. G. McCallin and his three amateur mechanics were badly needed on Monday evening. Suffice it to say that, in spite of aspersions, everyone had an excellent time, and we hope to participate in this Festival again.

The final record of the Hockey Club is: Played, 38; won, 25; drawn, 4; lost, 9; goals for, 140; goals against, 79. This is the best season we have had for many years, but next year, with a much stronger fixture list, we hope to do even better.

As secretary of the Club, I should like to thank in the name of the team secretaries all members of the Hockey Club for their co-operation throughout the season.

E. J. M.

Hospital Information, etc.

Pass List

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.
April, 1938.

Surgery.

G. E. King-Turner.

Medicine.

A. Backman *W. D. Brinton

Forensic Medicine.

*W. D. Brinton G. E. King-Turner

* Has now completed the examination.

Papers by Guy's Men

P. M. F. Bishop. Clinical experiment in œstrin therapy. *Brit. Med. J.*, 1938, i, 939.

F. S. Krusin. Electrocoagulation and gingivectomy. *Brit. Dent. J.*, 1938, lxiv, 433.

A. Ralph Thompson. The association of nervous and urinary disease. *Proc. Roy. Soc. Med.*, 1938, xxxi, 604.

R. W. B. Ellis. Blood transfusion at the Front (film by Dr. Frederic Duran-Jorda, Chief of the Spanish Government Blood-Transfusion Service). *Ibid.*, 684 (Sect. Surg.).

C. Gill-Carey. Traumatic laryngeal stenosis treated by skin grafting. *Ibid.*, 661 (Sect. Laryngol.).

Appointments

G. B. Palmer, Lieut., N.Z.M.C., 1st Field Ambulance, Auckland, New Zealand.

Changes of Address

A. R. F. Thompson, 33, Harley Street, W.1. *Langham* 2720.

G. H. Ellingham, 33, Harley Street, W.1. *Langham* 2720.

Marriages

RAMSDEN—CLARKE.—On April 21st, 1938, at Brenchley, Walter Maurice Ramsden to Margaret Joy Clarke.

Births

RECKITT.—On April 10th, 1938, to Mollie (née Harrison Taylor), wife of Dr. V. B. Reckitt, of 1, Eardley Road, Streatham—a daughter (Juliet Merrifield).

EUSTACE—On April 28th, 1938, at South Park, Sevenoaks, to Grace, wife of Robert J. Eustace, L.D.S. (Eng.)—a daughter.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

AS we go to print comes the news of the Charing Cross Underground accident. We would offer our sympathy to the relatives and friends of P. A. B. Drummond and D. F. Sturdee, Dental students at Guy's, who were among those who lost their lives.

THE Appeal Committee ask us to express its thanks and appreciation to all those who helped in the annual Combined Hospitals Street Collection.

The results this year were very gratifying, since nearly £500 more was collected this year than last. The final figures are :—

£	s.	d.	
1,882	16	9	Guy's Area.
158	8	5	Central Area.
13	3	6	Donations.
£2,054	8	8	Total.
£1,560	19	1	Last year.

Until the figures for the whole of London are taken into account it will be impossible to say to what extent Guy s will benefit this year. The results so far, however, are very encouraging.

We are also asked to announce that Sir Arthur Hurst is again organising a Car Park in his grounds at Heath End, Ascot, during Ascot Week for the benefit of the Appeal Fund. All applications for tickets should be made to the Appeal Secretary.

WHEN expressing opinions and comments in these columns we do not set out to please or to pander; neither do we aim to injure or offend, and we were particularly sorry to hear that something we had written recently had given offence to some members of that ancient and honorable City Company, The Society of Apothecaries. We were not only sorry, but mildly annoyed, for our whole intention was to express the opinion the contrary of which was apparently understood. We would therefore reiterate the essential points of our theme, which was that there exist in this country too many medical degrees, and that one standard of qualification only should be provided. Mr. Souttar wrote recently in the *Sunday Times* that, after a long experience as an examiner, he considered there was very little difference between the requirements exacted by the various examining bodies. That there is an essential similarity of standard we maintain; that there is a similarity of respect accorded to different qualifications we deny.

We believe that there should be one standard qualification only, because the present system lends itself to unfair discrimination based on out-of-date opinions of differences which may have had validity twenty years ago but have none to-day.

The Society of Apothecaries provides to-day a qualifying examination of an undoubted high standard, but we continue to doubt whether it receives as yet the recognition which it deserves.

LAST year, due to an unfortunate accident, the Hospital was deprived for some months of the services of Mr. Ogilvie, who used his convalescence to pay a visit to the U.S.A., where he was able to compare American surgical methods with our own. We are fortunate in being able to publish the results of this trip, which Mr. Ogilvie has incorporated in a diary of his travels and has kindly allowed us to reproduce. This record, however, is far from being an essay on comparative surgical technique; it is, as we have said, a diary, written as a diary should be—from day to day, committing to paper before the mental image fades the interests and impressions of that day. Mr. Ogilvie suggested that we might prefer to publish only those sections which were of surgical interest, but we have chosen to include the whole

for we felt that if a man was a keen observer in his own field, he could not fail to use those gifts elsewhere.

We therefore set before you this week the first instalment of Mr. Ogilvie's diary in the full confidence that it will profit and entertain you.

▭

NOT so very long ago we were observing the rise, section by section, of a magnificent new chimney in the precincts of the Hospital. Week by week we watched its growth, cheerfully bore the stigmata of its temporary predecessor upon our faces, our linen and the lining of our lungs, believing in our innocence that the nuisance would at last be abated, that this imposing addition to the heterogeneous collection of architecture that calls itself Guy's would show itself worthy of its place, and that the black billows of smoke we had suffered so long would no longer oppress our sensitive olfactory organs.

Imagine our consternation, on paying a random visit to the top of the new Pathology Block, to be greeted by a layer some six inches deep of semi-digested vomitus, belched forth, so we were assured, in under twenty-four hours by this same supposed monument to modern engineering efficiency. Not content with merely superficial observation and bearing in mind our duty to our readers and to the public, we nobly fought down the tide of nausea occasioned by our first glance and probed deeper into the matter. It would appear that here, in our very own Hospital, we have a phenomenon of daily occurrence, beside which the submersion of Pompeii and Herculaneum pales into insignificance. No ordinary ashes are these, but intact pieces of journalese—excerpts from the *Daily Rag*, cuttings from the *Weekly Blather*, charred at the edges admittedly, but nevertheless in sufficiently good condition to be of untold value to the archeologist of the future. And suddenly, dear reader, as we stood among the debris thinking our of next week's laundry bill, an inspiration came to us. Why not immortalise the Hospital and its work for future generations by feeding the monster in our midst with back numbers of the Hospital *Gazette*? The matter is under consideration.

▭

FROM time to time correspondents send us items of news and interest which they have collected in their peregrinations. This week we reproduce two—the first ideological, without comment; the second, lapidary, inviting comment and diagnosis.

i

The motto of the County Borough of Croydon:
Sanitate Crescamus.

ii

On a tombstone in Bramfield Church, Suffolk:—

" Between the remains of her brother Edward
And of her husband Arthur,
Here lies the body of Bridgett Applewhaite
Once Bridgett Nelson.
After the fatigues of a married life
Born by her with incredible patience,
For four years and three quarters, barring three weeks
And after the enjoyment of the glorious freedom
Of an easy and unblemished widowhood,
For four years and upwards
She resolved to run the risk of a second marriage-bed,
But Death forbad the banns,
And having with an apoplecktick dart
(The same instrument with which he had formerly dispatched her mother)
Toucht the most vital part of her brain,
She must have fallen directly to the ground
(As one thunderstrook)
If she had not been catcht and supported
By her intended husband.
Of which invisible bruise,
After a struggle for above sixty hours
With that grand enemy to life,
(But certain and mercifull friend to helpless old age)
In terrible convulsions, plaintive groans or stupefying sleep,
Without recovery of her speech or senses,
She dyed on the twelvth day of September
In ye year { of our Lord, 1737.
{ And of her own age, 44.

The third item we ourselves contribute, namely, a notice of a book on astronomy written by a Guy's doctor who is also an astronomer, and reviewed by another Guy's doctor who, too, is an astronomer. The author is Dr. R. L. Waterfield, the reviewer Dr. W. H. Steavenson, of West Norwood.

Obituary

WALTER HENRY MAXWELL TELLING, J.P., M.D., F.R.C.P.

THE death occurred on April 28th of Dr. Maxwell Telling, consulting physician to Leeds General Infirmary, at the age of 63.

For several years his health had given cause for anxiety, yet he continued to carry on his various activities until a few days before his death. Indeed,

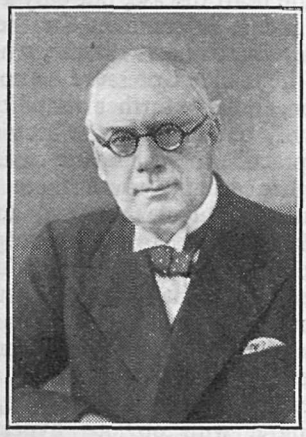
as late as April 23rd, when attending the wedding of a relative in London, he delivered a delightful speech.

After returning to his home in Leeds he became seriously ill and died the following Thursday of cerebral hæmorrhage.

Walter Henry Maxwell Telling, the son of Henry T. Telling, was born in Surrey; he received his early education at the Camberwell Grammar School.

Entering Guy's Hospital in October, 1893, he had a most successful career as a student. He took the Primary Fellowship of the Royal College of Surgeons and, after graduating in 1898, continued his studies and went on to win the Gold Medal at the M.D. (London) in 1901.

During the period intervening between these examinations he held the posts of House Physician and Obstetric Resident at Guy's Hospital. He passed the M.R.C.P. (Lond.) in October, 1902, and was elected F.R.C.P. in 1913.



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As a sportsman Dr. Telling was an excellent shot. In his student days he became a regular representative of the Guy's Rifle Association in inter-hospitals competitions. At Bisley, in July, 1895, he won the Maw, Son & Thompson Prize for the highest score in the whole inter-hospitals competition.

At the age of 25, Telling was appointed Resident Medical Officer at Leeds General Infirmary, to which institution he remained attached for the rest of his life. In 1903 he was elected Assistant Physician to Leeds General Infirmary, Physician in 1912, and Consulting Physician in 1932.

Telling's first formal appointment in connection with the University of Leeds was in 1906, when he became clinical lecturer in medicine. In 1921 he succeeded another old Guy's man, Dr. H. J. Campbell, of Bradford, in the professorship of pharmacology and therapeutics. Two years later he was promoted to the Chair of Medicine, and, on his retirement from the latter post in 1932, he was given the Chair of Forensic Medicine.

Although Telling's professional career was chiefly bound up with the General Infirmary and University of Leeds, he held many other appointments. He was Consulting Physician to the Jewish Hospital, St. James's Hospital, the Women's Hospital, the Maternity Hospital, and the Cookridge Convalescent Hospital.

During the Great War he acted as Divisional Medical Officer at the 2nd Northern General Hospital with the rank of Lieut.-Colonel. His contributions to medical literature were mainly concerned with intestinal diverticulitis, fibrositis and allied conditions, and psychology in relation to medicine.

Outside his professional work, Telling was keenly interested in Freemasonry, and became the Senior Grand Warden of the West Yorkshire Province.

He was made a Justice of the Peace for the City of Leeds in 1937. As a keen lover of music he regularly attended the Leeds Musical Festivals. He was a sincere and devout Christian who became a warm supporter of the Oxford Movement.

Telling held a deservedly high reputation in the North of England both as an eminent physician and an able clinical teacher. Broadminded in his views on medicine, he took endless trouble in making investigations and in recording findings. As a clinical teacher he excelled because of his thoroughness, his enthusiasm and his lucid expositions.

Personally, Maxwell Telling was a remarkably lovable man, possessing great force of character. Scrupulously fair, anything that savoured of meanness, or injustice, was anathema to him.

Those of us who had the privilege of working in close co-operation with him during his appointments at Guy's will always remember his sterling character, his absolute integrity and his amazing energy; and many recall the loyal and generous hospitality that he extended to old friends when they met him at Leeds.

Maxwell Telling leaves behind him the fragrant memory of a noble life full of diligence and zeal spent in the service of his fellow men.

He married Ingeborg, daughter of Julius Aagaard. Deep sympathy will be felt for her, his two daughters and his son, who now holds an appointment at St. Bartholomew's Hospital.

J. L. P.

Auricular Fibrillation and its Treatment

A Clinical Lecture delivered at Guy's Hospital on Friday, 11th March, 1938, by Maurice Campbell, Esq., O.B.E., M.D., F.R.C.P.

GENTLEMEN,—When I was small, the chemists' shops were still marked by large bottles of coloured water, or perhaps coloured bottles containing ordinary water, and I pictured them as potent remedies for different diseases. The public view of doctoring still holds a good deal of this attitude, that there is a correct bottle for every disorder, and that if you do not give the right medicine, it is simply because you are a bad doctor, and not because there is no appropriate mixture in existence.

When you come to think over those remedies that are specific for particular diseases, it is disappointing how few of them are to be found. One can quote four or five as special examples—iron in chlorosis, quinine in malaria, arsenic in syphilis, and to these we can add more recent introductions such as emetine for dysentery, and, if we are prepared to go away from simple chemical compounds to endocrine preparations, we can add thyroid for myxœdema, liver extract for Addison's anæmia, and insulin for diabetes. When we try to compile such a list there are relatively few conditions of which we can say there is one specific medicinal treatment which must be used. Much more often the drugs we give are helpful in one particular line, intended to benefit the patient's symptoms rather than to cure the disease.

To-day I want to bring before you auricular fibrillation, especially its treatment with digitalis, because I think this deserves a place in that small category of drugs which are almost curative. Quinidine is actually curative, but it is less often appropriate. There are many patients who owe their lives to the use of digitalis, not merely the prolongation of their life for a few months, but perhaps for a period of ten years, during which they have been enabled to lead a life of comfort and efficiency. If we try to think of drugs of which that is true, there are relatively few of them. Even if we contrast it with the more modern discovery of the mercurial diuretics, it stands out as enormously more valuable, often prolonging a useful life for years rather than for months. Digitalis is one of the drugs, like morphia and a few others, about which it is difficult for you to know too much.

Auricular fibrillation rarely occurs without congestive failure, and to some extent the two subjects, the treatment of fibrillation and the treatment of congestive failure, must overlap. Many cases of congestive failure occur without fibrillation, but what you have learned about the treatment of congestive failure with fibrillation applies more or less also to congestive failure with normal rhythm also, though it is likely to be less effective.

I want to talk mainly about treatment, but there are a few things I should like to go over quite quickly before this; first, the ætiology of the conditions under which auricular fibrillation occurs, and then its diagnosis and a few words about the prognosis.

ÆTIOLOGY

There is still a widespread idea that fibrillation occurs only with rheumatic hearts. In hospital rather more than half the cases of fibrillation have got rheumatic heart disease, but only a little more than half, and it is common for the senile or degenerative type of heart disease, whether associated with high blood pressure or not, to result in fibrillation, adding a further disability to a heart already heavily burdened by the arterial changes. In private practice the rheumatic cases diminish, and the other group, where there is arteriosclerosis but no valvular disease, accounts for more than half the total. Both in hospital and in private the thyroid occupies the third place as the cause of fibrillation, and though this is less common than the other two, it is important, because often you can do even more for them than for the others.

If a patient has exophthalmic goitre, or an old-standing goitre, with obvious hyperthyroidism, there is no need to draw your attention to this cause of fibrillation. But in many cases where the effects on the heart have become the most important part, the symptoms and signs of hyperthyroidism are relatively slight, and it is easy for them to be missed. You will find advantage for yourself and your patients if, every time you see a patient with auricular fibrillation, without mitral stenosis or some obvious cause for the condition, you always bear in mind the possibility of thyrotoxicosis. In one important group the goitre has been present for so long that the patient has almost forgotten, and there may be few other signs of active hyperthyroidism. Yet the goitre is responsible for the fibrillation, and it may be that treatment will not be completely successful without treating the thyroid as well. When a patient has had a goitre for thirty years he may disbelieve your

suggestion that it can be the cause of his heart condition. It has been a part of him during a long life, and he cannot think that it could cause any trouble.

In the last group we have to consider from the ætiological point of view none of these causes can be found. Although generally fibrillation means permanent structural heart disease, and that one of the causes mentioned has been at work, occasionally, in something like 5 per cent. of the total, the heart is substantially normal, and fibrillation is the result of some temporary toxic myocarditis which has passed away, leaving little or no heart trouble except the irregularity. Here treatment is almost doubly important, because you can reach the stage of curing it completely, whereas in most other heart conditions you can only hope for improvement.

DIAGNOSIS

I do not think I need say much about this. You are all familiar with the condition and generally accurate in the diagnosis of it, but, however expert you become, there are the rare occasions when diagnosis is difficult and where graphic methods should be used to make it absolutely certain. A few cases are sent to the Cardiographic Department by people of experience in which fibrillation has been thought to be extra-systoles, and extra-systoles have been thought to be fibrillation, and sometimes I have great difficulty in coming to any certain conclusion. The two things which are likely to lead to difficulty in this direction are extra-systoles occurring with a rather rapid heart rate, and cases of flutter where the degree of heart-block is not constant, but varies from time to time so that there is an irregular pulse.

As regards extra-systoles, you know the rule that if you quicken the heart by giving the patient exercise the extra-systoles should disappear when the heart beats more quickly than 100, and that irregularities persisting at a higher rate are probably fibrillation. I think the only occasion when this does not apply is when there is active infection of the heart at the time. Extra systoles are then found at the rapid rate.

The possibility of flutter should be borne in mind when at first feeling the patient's pulse you think of auricular fibrillation, and then, a few minutes later, it is so regular that you wonder how you could have been mistaken. This result is often due to auricular flutter, the regular period having a regular degree of block and the irregular period a varying degree of block. I shall not to-day talk about the treatment of auricular flutter, but there are certain differences in its treatment which make it important to pick out this small number of cases. It is, of course, a rare condition as compared with fibrillation; there are something like 100 cases of fibrillation for every five of flutter.

On this subject of diagnosis I might add that there are nearly always some signs of congestive failure if a patient has untreated fibrillation. It may be swelling round the ankles, a slightly tender and enlarged liver, or crepitations at the base of the lungs. Recent X-ray work has shown that the congestion spreads out around the pulmonary roots and frequently is recognisable centrally by means of X-rays before crepitations can be found at the base of the lung.

PROGNOSIS

As regards the prognosis of these cases in their natural course, I have said already that they nearly always develop congestive failure. Generally this is the most important thing, and leads to their downward progress apart from treatment. Occasionally, where the heart muscle is good and fibrillation develops from some almost chance occurrence, one may find very little incapacity. One or two cases of that kind stand out in my mind. One is a colonel in the Army, who is a good tennis player and has no apparent disability from his fibrillation except that the beating of his heart is unpleasant when he goes to bed at night. Such a story where fibrillation is really the only abnormality of the heart is exceptional, and he certainly would have been a very suitable case for quinidine.

Much more frequently the onset of fibrillation is a turning-point in the patient's life, and this applies to the rheumatic heart where the patient has known perhaps since childhood that he had some heart disease, but has not thought very much of it and has not had much trouble, provided he led a rather easy life and not tried to do too much. But the onset of fibrillation will change that, and he will become short of breath and less able to work. That is the sign of gradually increasing congestive failure. It is uncommon for a patient with fibrillation not to go at least a little downhill from year to year, though sometimes there may be a period of years without deterioration.

Another risk is embolism. I expect several of you have seen patients come up to the Neurological Department with hemiplegia which has come on suddenly while they were apparently in good health, and they have been found to have mitral stenosis and fibrillation. An untreated fibrillation is a greater risk from the point of view of embolism than a treated case, and in this sense, too, the onset of fibrillation, especially where there is mitral stenosis, is a serious disadvantage.

ONSET

The great majority of patients under forty will send for the doctor within two days of the onset of fibrillation, very often within a few hours. The condition produces such a sudden change in their symptoms, they are so much aware of the rapid palpitation, and so quickly become short of breath, that they are almost certain to be in the hands of the doctor at once. That is why it is important for you to be on the look-out for the onset of fibrillation and to remember that the early weeks are the best time for deciding between the two alternative treatments of trying to stop it with quinidine or trying to keep it under control with digitalis.

I had an instance of this quite recently. A lady, unaware that she had heart disease, spent the afternoon playing tennis, and later went on to a party and a dance, feeling perfectly fit. That night, after she had been two or three hours in bed, she woke up with extreme dyspnœa and palpitation, and the doctor discovered auricular fibrillation. She had mitral stenosis which nobody knew anything about, and luckily has hardly any enlargement of the heart and a very good ventricular muscle. But she was quite incapacitated from the time of onset of fibrillation, and for some unusual reason it was so difficult to control with digitalis that she did not get back even to easy housework. It has been possible to restore normal rhythm with quinidine, and I think now she feels practically as well as before.

In many cases it is nearly as sudden as that in its onset; indeed, like a broken leg, the onset must be sudden. The only cases where it is difficult to recognise when fibrillation started are in those older patients with some degree of heart-block from degenerative changes in their A.-V. bundle, who are less immediately aware of the palpitation, and find their symptoms developing more gradually.

TREATMENT

Next we can pass on to the actual treatment of a patient in which the diagnosis of fibrillation has been made. The first thing is to decide whether treatment should be with quinidine, or, as more usual, with digitalis. I am only going to deal with quinidine shortly, but would like to lay down four rules for you in picking out those cases suitable for quinidine; every case which does not fulfil these four conditions is not suitable for quinidine, and must therefore be put on digitalis. In other words, we have to accept fibrillation as permanent and do our best to control it.

QUINIDINE TREATMENT

When quinidine was first introduced and it was found that it could stop auricular fibrillation it was used rather indiscriminately in all sorts of cases, with the result that many dangers made their appearance and the normal rhythm which was restored did not last very long. Accordingly many people thought it was not a very valuable remedy. It is only of value if you observe strictly some such rules as those that follow :—

1. Recent onset. The shorter the time the patient has had fibrillation, the better the chance of stopping it. The chance is best when the time is measured in weeks; if it exceeds six months it is never worth while using quinidine.

2. The size of the heart. The smaller the heart the more likely that the restoration of normal rhythm will be lasting. It is easy to say that if the heart is only slightly enlarged quinidine is indicated, and if greatly enlarged it is certainly not. But that leaves you with intermediate cases of moderate enlargement, and in some of these it is difficult to decide. Although one cannot give any exact measurement because the patient's size makes so much difference to what his heart ought to be, it is quite a good average that for a patient weighing about 10 stone anything over 12.5 cm. maximum transverse diameter of the heart is to be called moderately enlarged, and anything over 14.0 cm. greatly enlarged, making the case unsuitable for quinidine. With a larger man of 12 stone or 13 stone, something up to 1.0 cm. larger may be allowed. If the heart is well below these figures, then, as far as size is concerned, the patient is suitable for quinidine.

3. Congestive failure. Most patients have some congestive failure; if they have had gross failure, however well they do afterwards, their ventricular muscle must be poor and they are not good subjects for quinidine, and normal rhythm, if restored, is not likely to last. If, on the other hand, failure has quickly responded to treatment with rest and digitalis, and the patient has not got much disability, he is suitable for trying to restore normal rhythm entirely.

4. Embolism. The patient should not have had an embolism at any recent period, because the restoration of normal rhythm is a moment of special danger, as part of a clot in the auricle may become detached resulting in an embolism. Apart from this one risk, I regard quinidine as actually a method of preventing embolism. If we were to take twenty patients where fibrillation has been stopped with quinidine and twenty others where fibrillation has been allowed to continue, even if they have been well treated with digitalis, there will be more emboli in the course of five years

among those who did not have quinidine than among those who did. It is quite clear that we are really reducing the risk of embolism, although we may be concentrating the risk at a particular moment.

I have not time to speak about the method of giving quinidine, but I have thought it important to describe those cases where quinidine is indicated.

DIGITALIS TREATMENT

Every other patient with fibrillation requires regular treatment with digitalis for the rest of his life. That is frequently forgotten, both by the patient and, I am sorry to say, by his doctor. There may be a few exceptions, but they are rare. It used to be thought that digitalis also stopped fibrillation, and that when one got a fairly regular rate, fibrillation had ceased. Perhaps this happens once in a hundred times. Usually it has had no effect on the auricle, which is fibrillating just as much as before. What we have done by digitalis treatment is to induce such a degree of block in the auriculo-ventricular bundle that the ventricle does not get driven at the fast and irregular rate and is able to give stronger contractions, which are more useful in maintaining the circulation. That is the stage at which things sometimes go wrong; the attack is thought to be over; digitalis is stopped, and in a few weeks, perhaps not for six weeks, the patient is as bad as ever. Then it is assumed, wrongly, that digitalis is of no use in his case. If digitalis were excreted quickly, and the dose taken on Monday were got rid of by Tuesday or Wednesday, that difficulty would never arise, because the patient would realise that his deterioration was due to stopping the medicine, and he would be keen to continue. But the fact that it takes weeks to get rid of any effective amount of digitalis, the system thus remaining under its influence to a gradually decreasing extent over all that time, means that it is often not realised that the two things are cause and effect.

This seems a good moment to take up a few points about the absorption and excretion of digitalis, because successful use of it does depend very much on understanding that the dose is slowly absorbed. If an ordinary patient be put on a dose of digitalis by mouth every day no effect at all will be seen for four or five days. The amount that is absorbed gradually accumulates in the blood. This means that in special cases where urgent treatment is needed other methods have to be employed. But digitalis is even more slowly excreted, and if, after a patient has been balanced with an adequate concentration in the blood, digitalis is stopped altogether, the amount in the blood may remain high enough for three or even four weeks to keep the patient well controlled over that period.

That has been described as the cumulative action of digitalis and it has led to much misunderstanding. It has made people think that if you take digitalis regularly there is some cumulative effect, and that sooner or later you must be poisoned. This is not so, because you soon reach a balance where the amount excreted is exactly equal to the amount taken. I have many patients treated successfully with digitalis who have taken the same amount every day for periods like ten years who have never had any symptoms of digitalis poisoning. It has been popular, to avoid this cumulative action, to order digitalis for so many days in the week and so many weeks in the month, and this method is still popular in France. But it is obvious that it cannot maintain good control during the whole period. If at the end of the third week on digitalis, when the patient is taking the right amount and the control is at its best, if then digitalis is stopped for a week, he will obviously not be at his best at the end of that week. It is a less satisfactory method because the patient has his ups and downs; our object should be to find out the amount that will be balanced by the amount excreted and so maintain the best control.

I do not think anybody can give you an answer as to how much digitalis a particular patient needs. That is simply a matter of experiment which has to be done on each patient to get the right control as between his powers of absorption and excretion; but good average figures can be given which work in most people. It does not follow that when fibrillation is controlled by a small dose of digitalis the patient has a specially good outlook, or because a patient needs a large dose that his outlook is bad. That is the general rule with most drugs—your measurement of the severity of a diabetic, for example—but it is rather the opposite with digitalis, because if the patient has a bad heart, he very often has bad kidneys, either from renal disease or from passive congestion in the kidneys due to the poor circulation. The kidneys are then able to excrete very little digitalis, so that a small dose is all that is needed for adequate control. Unless there are changes in the conductivity of the A.-V. bundle, this is the only way in which the patient's need for digitalis ever changes. Often the patient is afraid that he may become habituated to digitalis as to opium and that it may cease to be effective, but this is not so. Perhaps one should add one temporary cause of change. Just as the amount of insulin which balances the diabetic well in ordinary periods of

health has to be raised during any transient infection, so a patient may need increased digitalis, and it may, for the time being, be difficult to get adequate digitalis control.

Those are general remarks about digitalis which apply to all patients. I think for the rest of my lecture I had better divide them up into particular groups. First of all, we have the patient who is able to get about and comes before you without gross congestive failure, but with some slight signs of failure. There is always need for rest in such cases, though I do not think this should always mean absolute rest in bed. If such a patient be started on 15 minims of tincture of digitalis t.i.d., you can be almost certain that within a week there will be some improvement, and within a fortnight the heart rate will be down from 140 or 120 to 70 or 80 and he will be enormously better. Then you will find whether that amount is quite enough or rather too much, and if you still find the heart rate about 80 after that, probably 15 minims is not going to be quite enough. If it has got down to 60, you need some amount like 10 or 12 minims t.i.d.

One useful point in this connection is that vomiting or nausea is often thought of as the main sign of digitalis poisoning and means that the patient is having too much. Vomiting is also a sign of the gastric congestion from heart failure, and may often be an indication for more digitalis. In a patient with nausea, the heart rate divides those two groups almost decisively. You rarely get nausea from digitalis unless the heart rate is under 70. If you have nausea with a heart rate over 100 it is never due to too much digitalis, and often means that there is gastric congestion from heart failure and that the patient is not taking enough digitalis. Occasionally digitalis leaf is more liable to produce nausea than a preparation such as digitalin.

The next step in a patient of this group is to get him fixed on some amount that he can take more or less indefinitely. There is one general consideration. With many medicines the less you take the better; their object being to get the patient so that he does not need further medicinal treatment. With digitalis it is rather the reverse, and most patients with fibrillation are able to do more and keep fitter on the largest amount of digitalis they can take without getting signs of intolerance, the most usual early sign of intolerance being nausea. An unduly slow heart rate of under 60 often means that we are getting near the point of intolerance, and unless the amount of digitalis is reduced there will be more serious signs of digitalis poisoning. When a patient has signs of over-dosage, it is best not to stop his digitalis altogether over a long period; but if it is stopped for two or three days and then started on a slightly smaller dose a good control is obtained again without a long period of waiting during which the advantages of the previous treatment are lost. It is important, whenever changing the quantity of digitalis, to remember how slowly the patient is responding, and we have to look at the last four weeks and take the average amount of digitalis over that time. It is no good saying when we discharge a patient from hospital that he is well controlled without digitalis if it has been stopped recently, because he is still influenced by the earlier amount he has taken, and will very soon be as bad as ever unless it is resumed. You will find it a good rule to aim at that no patient should be discharged from hospital if any substantial change has been made in the amount of digitalis given during the last fortnight of his stay. You should keep him in until you see whether it is enough or too little.

I have spoken so far only of the tincture, because it is the easiest to adjust correctly by making small changes. But when you are thinking of a patient who may have to take digitalis for ten years it is important to get him on to a solid preparation rather than a bottle of medicine, since it may make all the difference to his taking it regularly. I am thinking of someone who wishes to lead a fairly active life, where the necessity of constant recourse to a bottle of medicine is a drawback, rather than the old lady who enjoys her fortnightly rest and gossip at Out-Patients. Tablets which can be carried in the waistcoat pocket are more likely to be taken regularly, and most patients should be put on some solid preparation for permanent control. There are many different ones, but I mention only two because I have experience of them and not because they are necessarily the only good ones. I do suggest that you should confine yourselves to very few preparations of digitalis, so that you may become really familiar with them, and that you should not use a different maker's digitalis every few weeks because somebody has visited you with samples of it. Mackenzie said that his life had not been long enough to know everything he wanted to know about the tincture of digitalis, and that he knew little about any other form of digitalis; so you need have no hesitation in following this lead. The obvious preparation to use is the whole leaf, and *tab. dig. fol. gr.* 1 can be taken as a very close equivalent to 15 minims of the tincture.

The other advantage of the tablets is that they keep more or less indefinitely. In hospital, where there is a big turnover in the dispensary,

digitalis will be always sufficiently fresh, and one is inclined to forget that tincture of digitalis does not last. If there is only a small turnover of digitalis, you want to guard against this risk. If you find a patient with fibrillation who is not responding to tincture of digitalis in adequate doses, there are only three possible explanations. The first is that the drug is inactive, in which case some other preparation should be tried. The second is that the patient is not taking the drug; I had a good example of this not long ago, where the doctor had increased the amount of digitalis till it was certainly more than adequate, but the patient still had a heart rate of 140, and finally admitted that he was not taking it, but was throwing it away. The third possibility is active infection at the time. In this last category I would include some cases of hyperthyroidism.

The solid preparation I have mentioned is an excellent one which keeps and suits most patients very well and is quite convenient and also cheap. My only reason for mentioning another solid preparation is that digitalis leaves cannot be made up in very small tablets, the 1-gr. tablets being fairly large, and that they are a little more likely to produce nausea or vomiting than some other forms. A few patients may find that they get nausea before adequate control is established. As an alternative I suggest *digitalin* 1/600 *gr.*, this being the equivalent of about 1 gr. of the whole leaf. It is therefore an enormously more concentrated glucoside, and this very small amount will be adequate. It is important to bear in mind these figures and their correspondence, so that the patient can be changed easily from one to another.

I think those three preparations will be all you need for the treatment of any of these routine cases of what I should call moderate failure. The next thing is the patient who comes under your notice very ill, where the onset of fibrillation has led to grave congestive failure. The patient is either in bed already or you realise that he must be sent to bed immediately. In these cases one cannot afford a week to get digitalis control, and it is important to slow the heart rate much more quickly. Four or five years ago I should have said that the two choices were strophanthin or massive doses of digitalis. Massive doses of digitalis were very popular, under American influences, in the period after the War, and are certainly effective in giving quick control. Instead of 1 drachm a day one gives 6 drachms in a short period. This amount all at once is too dangerous, and various ways have been suggested of dividing it up. One common method was to give 3 drachms immediately, 1½ drachms in four hours, and the remaining 1½ drachms divided into two doses at 4-hourly intervals. One must take into account the weight of the patient, and the figure of 6 drachms for getting complete control applies to someone weighing 10 stone, so that a person of 8 stone would need less, and of 12 stone more.

The alternative was to give intravenous strophanthin 1/200th gr., if the patient had digitalis before, or 1/100th gr. if one was quite sure he had not. This often gives good control and the heart rate drops in six hours, instead of taking seven or eight days. I think that was the only place strophanthin had in the treatment of fibrillation, and it has now been replaced by a new concentrated glucoside of the digitalis group—digoxin. In my opinion there is now no place left for strophanthin; for permanent control I do not think you will ever get a better result than with digitalis, and in many cases you will get a worse. I carried out a careful investigation with a number of patients with strophanthin and came to the conclusion that it nearly always failed, because there was such a small margin between the toxic dose and the amount which produced adequate control. With digitalis the margin is much greater. With strophanthin you have to get a very accurate dosage because of this small margin, and with some patients you find that the level producing toxic symptoms is actually lower than the level giving adequate control, and it is quite impossible to get the heart rate slow without vomiting or nausea. I would say that the patient on strophanthin was never made better than on digitalis, and often a great deal worse. This at all events saves you having to know much about strophanthin, and enables you to concentrate on getting the best out of digitalis.

With digoxin you can get control quickly and, in many cases, in six or even in four hours the heart rate drops from 140 to 70. It differs from the other preparations in that it is far more quickly absorbed and excreted, so that the difference between the daily dose and the amount that can be safely given on a single occasion is much less. We can call the average daily dose of tincture ¾ drachm, and the amount needed to get control in a single dose 6 drachms. The average amount of digoxin needed daily for full control is 0.75 mgm. or less, and eight times that would be about 6 mgm., which is four times as much as you should ever use in a single dose.

Digoxin can be given both by the mouth and intravenously, and you should not use more than 1.5 mgm. by mouth to get quick control even in a patient who has not had any digitalis already, and not more than 1 mgm. intravenously.

I have not left time to discuss the many other things which turn up in the treatment of auricular fibrillation by digitalis, such as reduction of fluid intake, salt-free diets, and the use of the mercurial diuretics. I would only say that these should not be resorted to until one is sure that rest and digitalis are not able to produce a good result. It is well worth spending a large amount of time on digitalis, because, as I said at the beginning, this is one of the very few which I would put with morphia and some others as drugs about which it is impossible for you to know too much.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*This diary was written from day to day, chiefly in trains and in hotel bedrooms. Its only purpose was to preserve impressions before they were lost, and it can therefore make no claim to style or sequence. The selection is the Editor's, and I have done no more than substitute occasional fictitious names and suppress such parts as might give offence or are purely personal.*—W.H.O.)

September 10th

WHEN D—— rang up to say that he had fixed me up a berth on the *Daisy Bell*, sailing out of Liverpool, I was a bit upset. I was all out to go as soon and as cheaply as possible, but my mind had been revolving about Tourist on the *Europa* or *Queen Mary*, and the idea of a small cargo boat with passengers came as a little bit of a shock. True, D—— had mentioned a cargo boat, but one in which passengers up to half a dozen were taken as "honorary" crew. This boat clearly made a business of passenger-carrying, but the accommodation plan showed very small public accommodation—a dining saloon in which none of the tables took more than four, a small writing and small reading room. My berth was an upper one in a three-berth cabin. I visualised that the other two would be noisy commercial travellers, drinking hard and late, wanting me to play cards, coming in and being sick at all hours—in short, making the ten days' crossing pretty miserable. Then came the offer of a two-berth cabin with a shower to myself. This cheered things up a lot, but there was still the doubt about my fellow-travellers.

On the boat train, therefore, I took a first so as to keep my privacy, but on the platform I walked along looking at the carriages reserved for the S.S. *Daisy Bell*. The greater number were clearly family folk, who had been seeing England, or going further afield to Europe, and were now returning home. There were plenty of the old dears with that unmistakable American face and white linen cap, with their old wives, very neat about hair, shoes and gloves. There were also several families. The rest of our part of the train was for a Cunarder, also going from Liverpool, and the only other occupant of my carriage was for this boat, an American who talked all the time, just softly enough for 80 per cent. of his words to be lost in the din.

At Liverpool we were taken in a bus straight to the Gladstone Dock, and were put down right under the bows of the *Daisy Bell*. She looked small, about the size of a Channel boat, but quite trim, and an interesting cross between passenger and cargo. The middle section was normal, the passenger part, and in front and behind this were cargo decks, the sides cut down about two decks, flush-sided, with only stanchions and chains. The bow and stern were fo'c'sle and stern quarters, one story high. On the two cargo decks were groups of derricks, six on the fore deck, four on the after deck, with donkey engines to each. The arms were swung out, but the loading of the hold was being done entirely by the dock crane.

Walking up the gangway, the reply of the steward to my inquiry, "You look as if you belonged over there," seemed to strike the note of the ship's company, "I'm here to help you, but but don't get fresh" attitude. My cabin was delightful, with plenty of room to hang my clothes and put my bags. The public rooms were simple and small, but cosy. We went down to the dining-room and had a very good dinner—clams, soup, chicken and rice, ice, coffee. The clams were a disappointment—looked like cockles, but tasted of nothing, giving a purely mechanical sensation like eating soft rubber. We went on deck again, and watched the holds being loaded at a great rate. We should have liked to be able to find out what all the small boxes were that were going into the hold, to know what England exports to America, but could get no clue. However, it was most interesting to study our crew at work. They were a mixed lot, probably all of European stock, but many of that swarthy Mediterranean type that may be Latin or African. There was no uniform. Some wore dungarees; most of them nondescript trousers and zip-fastened

blouses or lumber jackets. They wore no hats, or little linen ones varying from the pork pie to the sun hat in shape. There was also a notable absence of visible discipline : no disorder, but a complete absence of orders. Each man seemed to pick up bits of rope, shift boxes, and so on as the mood took him, and to do it in his own time. If it was a multiple job, the first would say to another, " C'mawn, son, give a hand," and if son took no notice, call a further one. With it all things seemed to get done very well. Among them were two distinguished by wearing yachting caps with the mufti, and by an air of authority. These must be bos'ns or quartermasters. Most remarkable, perhaps, two-thirds of them wore gloves all the time.

I stayed on the top deck till the last of the cargo had gone into the hold. Then came covering up the hatches for sea—a long and complicated job. First a series of heavy girders is dropped into slots across each hatch; this needs the crane for each. Then heavy wooden sections are laid across between these girders. Then three canvas covers are pulled over, the top one overlapping all round. Then steel battens are put round the four sides against the canvas and fixed tight by wooden wedges every three feet; lastly, baulks of timber are laid across, and screwed down at the ends with bolts and nuts. Being at last ready for sea, we were taken out of the dock backwards by two tugs, turned in its wider part and taken into a lock, in which we were dropped about ten feet. The lock gates opened, but it was about three-quarters of an hour before the pilot considered we had enough water to allow us out. Our boat must draw a lot for her length, as we saw the lights of the Cunarder and another big ship go down the Mersey before us. At last we were off. I watched the turn in the main channel and the seaward lane of lights opening up, and turned in. Two blankets only and a narrow bed; not too good a night.

September 11th, Saturday

I was not wakened, but reminded of the time, by the breakfast gong, a musical chime that is taken round the passages by a steward. I looked out of the porthole and saw that it was a lovely sunny morning, and that we were skirting along the Irish coast. I therefore dressed and went down to breakfast, where there was the usual bewildering choice of things to eat, to get on deck just before nine. We seemed to be going straight ahead for Belfast, but shortly after I got on deck, and just after we had passed the anchorage of the pilot boat, we stopped and let go the starboard anchor. The clouds of mud that came up as we reversed showed that there was hardly any water under our propellers. Here we stayed till about 12.30, before there was enough water in the channel for us to proceed into dock. It was a time to take stock of one's fellow-passengers.

Last night and this morning I shared a table with a couple of " old dears." He was born in Manchester, and this is his first trip home after forty-three years; his wife, I imagine, is American born. He has spent all his three months exploring England in a quiet way—no rubber-necking, just going to places like Chester, the Lakes, and North Wales, which he remembered or thought he would like to see.

Then in the writing-room was a young lady who, since she came aboard, has sat down in front of a portable typewriter hammering out sheet after sheet at incredible speed. This morning, while I sat at another table writing a letter, an old, white-haired, courtly old gentleman, whom I call the senator, sat opposite her at the twin table and, in the polite but entirely unreticent manner of old American gentlemen, proceeded to pump her about herself, her family, her job, and to tell her ditto about himself. I cannot remember much about him, except that he has been chairman or member of all sorts of political committes, and comes from Boston.

She is a trained stenographer, her father a professor at Harvard, her mother a Belgian. She has absorbed Belgium through childhood, and three months which she has just spent there, and has been busy writing a novel—whose plot the Senator extracted, but I have since forgotten. At any rate it is about Belgium, and has been accepted by publishers in England and America, and she is hard at work rewriting some of the chapters.

On deck I palled up with a young American, or rather he came up to me and showed me the points of interest on the shore and told me all sorts of things I did not know, such as that Carrick Fergus was the important centre in these parts before Belfast was founded. He is an interesting young lad, anything from 21 to 26. He has been doing Law at Harvard, and I am not sure if he has finished there or is going back at the beginning of term. The last three months he has spent exploring every corner of Ireland on a bicycle, with very little money, not seeing sights or going to big hotels, but living with farmers and every stratum he got into touch with. I rather gather he started out with the idea of writing a book, but gave it up, either because it was too much trouble or because he realised he had hardly touched the subject yet. It is hard to say, because I have not sized him up. He is all on the rag, but suddenly has his serious moments.

Both he and "Jim" (English) surprised me by coming to church this morning; still more was I surprised later to learn that he is a Catholic.

Young America is both amusing and interesting about the Irish. Ulster he finds serious and on edge, always worrying and talking about the South; in the South they never mention Ulster or worry about it, or indeed about anything. He finds the South living in the eighteenth century. They have the greatest contempt for law and authority; if a man wants a drink out of hours or to shoot game out of season he does so, and the police and the parson will take a gun or a glass with him. He says every Irishman longs for an American wife, not, as I thought, the impoverished landowner seeking an American heiress, but the Irish farmer wanting a woman who will keep his house tidy. Against this he thinks the priests a fine influence, and is all for De Valera. He says that he is putting up fine schools everywhere, and that the Irish kids now are going in for education with a vengeance.

Jim is a young Englishman, of about the same age as the American, and pairs off well with him. Being an Englishman I do not know a thing about him yet. He is nice-looking, dressed in good old clothes, certainly public school and possibly 'Varsity; occupation unknown. Has been to America before, when he bought a cheap car and travelled all over the place in it. He says at this time of year you could travel all over America for nothing, buy a this year's open car in New York, where, with the winter coming on, it has no value, go round the country, and sell it in California, where they always use open cars all the year, for more than you gave for it.

Young America shares Cabin III with a man known as the "Judge"; I should have been the third, a bit too sedate for the company. "Judge" is interesting, age about 21, a little Semitic, but fair hair and grey eyes, Egyptian name, born, I believe, in Cyprus; his father says he is no good and threw him out, but he has got a quota for America, and has come here with enough money to last him two months, firmly believing he is going to make a living at journalism.

On the first night there was a vision of beauty on the deck, who was seized and monopolised by young America and young England. I never saw her again till she was pointed out to-day, and I am not surprised I did not spot her. In daylight she is not much to look at; make-up and the lights and shadows of the deck did the rest. Two other beauties are a golden mop and a bright red shingle. I felt certain when they came aboard that they were a "sisters" act off a music hall. I do not know any more yet, except that they improve very much on seeing them several times, and are probably neither sisters nor on the stage. Golden Mop has the peering screwed-up eyes of the albino, but I do not think she is one.

That is all that stands out from the ship's company except, first, two very nasty men—they were put at the table with the novelist and her girl friend, and the girls have appealed for a change; second, two red-headed Irish priests who seem good lads, and third, lots of children and a group of old ladies with moustaches.

Well, at last we weighed anchor again and went down a line of port and starboard buoys to Belfast. There we went, in charge of two tugs, into a dock that meant a nasty turn. It looks most alarming to see a big boat heading for a stone quay, and it takes some time to realise that a tug can do almost anything in the way of stopping or turning. Going off the gangway we had an example of the rather casual way the ship was run. Everybody wanted to know how long we had on shore, and there was as yet no official pronouncement, but several hands round the gangway said, "Oh, we shan't clear till about 12 to-night; 10 o'clock will be quite soon enough to be back." A little later the official time came out as 5 o'clock, and that time was written on our landing cards.

The majority went for a charabanc tour of the sights. I walked up town with England and America, and they, having lunched, left me at a restaurant and went off to explore "the old homestead tavern." I had a large lunch and then rang up Fred, who had just got back from seeing the King's Cup aeroplanes land at the Belfast Flying Ground. He came down for me, and I spent an hour or so at Lennoxvale, when he and Mary, with Robert, came down to the docks. They were very taken with the *Daisy*, and mentally booked her for their trip to the States next year.

Five o'clock came. The cargo (of American wax for Irish soap being unloaded and replaced by Belfast linen for American tables) was just about finished, and the pilot was getting bothered about the tide, which was falling fast, but nobody on the ship was bothering very much about anything. Again orders and discipline seemed entirely missing. Some of the crew had been ashore. Two were pretty tipsy, and one definitely fuddled, but they were not reprimanded, locked up, or in any way noticed. They wandered round the aft cargo deck, ragging the sober ones, and were only pushed aside when they got in the way of a job. Towards six we were something like ready to get away, but three or four passengers, ones who had been told 10 o'clock, were nowhere in sight. However go we did. The two tugs

took us out backwards round the awkward corner, turned us in incredibly inadequate space, and we put off to sea, past the Harland & Wolff yards where the Union Castle liners *Arundel* and *Windsor* were in for repair, and a new one, the *Cape Town Castle*, on the stocks.

As we steamed down, the crew were getting a sea stow on the derricks. The cargo lifting rope was run out of its pulley and each sprit was then hauled vertical on its tackle, and clamped in a band to the upright from which it swung. The general management of these jobs was again interesting to watch. Of the two tipsies, one had recovered surprisingly. He went to the rail once of twice to be sick, but in between he did a lot of useful work, rather theatrically and extravagantly and in seeming danger of getting his hand or foot caught in machinery, but definitely doing his best. The other was just silly drunk—lurching about the deck with a fatuous smile on his face, making a dive for the throttle of a donkey engine and only just headed off in time, swaying along towards the open hatch cover with a twenty-foot drop and tacking across just as he reached the chasm, barging into the rather rickety stanchions between him and the sea. No one gave him orders, no one took any notice of him except to steer him off the engine controls; whose responsibility it would have been if he had killed himself or someone else is hard to say. In direction, chiefly in that he did most of the work himself, was one of the two peak-capped bos'ns, an eagle-faced young Adonis, aware, but not irritatingly so, of his good looks and fine body, a lad who someone said is working for an officer's ticket. He was perched on top of the derrick masts, catching the sprits as they swung in, swinging the collars round them and dropping in the pin, directing, or rather suggesting, what work should be done below. The four sprits trussed up, he took one of the wire shrouds in his gloved hands, and slid to the deck in a fine swoop.

Reaching the pilot boat, we dropped anchor once again, and waited for the stragglers. It was a lovely evening. The Liverpool boat raced in backwards down the narrow channel between the buoys, the pilot came out to his schooner in a motor dinghy, the sun set in a medium good effort, and all the buoys lit up and flashed in their various periods. We stood about studying each other. Nothing much new in my estimate, except that the " sisters act " seem a couple of nice kids, their simplicity seeming to deny my vaudeville theory, their taste for whisky to confirm it; that the nasty men get nastier; and that a few others are starting to emerge as individuals.

About 10 p.m. a motor boat is seen coming out with our lost passengers. We do not seem to have a companion ladder, and the aft starboard lifeboat is lowered overboard to within a few feet of the water. The lifeboats are slung in those patent davits one sees everywhere, metal arms with a toothed quadrant below, that swing right overboard before the falls are let go. This operation again was in charge of Adonis, and he stood in the boat as it went down, keeping its distance from the side with a boat-hook. The Heath Robinson brigade got it down fairly well, with a bit of back-chat. The launch then drew alongside of it, to the accompaniment of ironical cheers from the top deck, and the ascent started. This was much more difficult. There is a donkey engine for the work, and the fall from the fore and aft tackles is led through snatch blocks that are shackled to rings in the deck, to a drum at each end of the engine. This was done, but nothing seemed to happen; it was not clear what was wrong, but time and again stopping lashings were put on the falls, and the line was altered; everyone had a theory and everyone gave it. Finally Adonis came up a rung ladder on the side of the ship, and seemed to put his finger on the trouble at once. He returned to his charge with his flair for the dramatic. There was the dark hull of the ship with its rows of portholes, all the passengers leaning over the rails for a free entertainment; forty or fifty feet below in the half-darkness the lifeboat with our lost sheep, suspended just above the water, and round it the motor boat circling in case anything jammed and they were tipped into the sea, and at the davits two searchlights turned downwards. Suddenly, in the beam of the forward light we saw a figure leap out into the black space of the night, catch the falls some ten feet out in his arms, and slide down them quickly to the boat. The donkey engines now rattled into life, and the boat came up slowly, but before it could be swung into the side enough for the passengers to disembark a good deal of oiling of davits had to be done. At last they were out, and we left the crew to get the boat back on its chocks. Shortly after we weighed anchor, and were off for America.

(*To be continued.*)

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

What Do You Think ?

No. 2

SAM opened the front door one summer evening to hear stifled cries for help from the kitchen. He rushed through to find his mother stretched on her back across the table, terror in her eyes, held down by his father, who, purple in the eye and breadknife in hand, was threatening to slit her so-and-so gizzard the old what-do-you-think.

It was not the first time it had happened; prolonged indulgence at the "Old Dun Cow" had seared Father's temperament as well as his mucosa. The boy persuaded his mother to get out of it before they had another break, and some hours later the same evening was taking a few personal effects in each hand down the path to the front gate, where a friend was waiting with a car, when he heard a rush of feet and a bellow of foul oaths. The young twirt was going to twist his hæmorrhagic mother out of the house, was he? It was Father, and, without further introduction, Father let fly a corker at Sam's left eye; Sam let go his belongings, dropped back on his right heel and threw up a guard. It was not enough merely to defend, however, and soon Sam also unleashed a corker. It caught Father plumb on the Adam's apple and ended the fight. Father drew away, saying he had had enough, and walked away, coughing.

Early next morning—at about 6 a.m. to be precise—a police constable stood at the door of Sam's new lodgings requesting the pleasure of a visit from Sam to the local police station regarding the death of a man believed to be his father.

It transpired he had walked into the Casualty Department of a London hospital just after midnight, looking distinctly blue, and, speaking with great difficulty. He managed to tell the house surgeon who was called that his asterisk son had gone for him. His throat was swollen and tender; laryngoscopy revealed a large hæmatoma almost completely occluding the larynx, and it was felt he probably had a fractured thyroid cartilage, and ought to have the relief of a tracheotomy without delay. Unfortunately, the incision had to be made through swollen bruised tissues, and so much post-operative oozing took place that Father expired about an hour later from asphyxia due to filling of the air passages with blood. Had he not had a tracheotomy he might not have died, and no doubt existed at the post-mortem which was ordered but that blood from the surgeon's procedure was the immediate cause of the asphyxia.

Is Sam guilty of murder, or manslaughter, or not guilty of either?

What do *you* think?

SOLUTIONS TO No. 1

WE are glad to say that the new series of articles on medico-legal proglems, "What Do You Think?" (of which No. 2 appears this week) elicited a gratifying number of replies from as far afield as an old Guy s man who "fifty-two years ago," had such a problem, and had many memories revived, to a young "S.R.N." from the Nurses' Home who "until last Saturday was unaware of the true meaning of the term Forensic Medicine." Two correspondents suggest that Dr. X should marry the nurse, becoming thus one (in law), unable to conspire!

We, if consulted, would have given the advice to report the case to the Coroner as one of abortion requiring, in our opinion, a post-mortem examination by an expert as we were not satisfied that it was a spontaneous abortion; in the event of there being no instrumental marks there would be nothing to distinguish the abortion from a natural one, and therefore no evidence on which to charge anyone. The doctor's (X's) hearsay evidence would, of course, be inadmissible with regard to the nurse. The nurse would unquestionably be advised not to give evidence herself; it is for the Prosecution to prove their case.

Should the nurse confess or post-mortem give proof of criminal interference, Dr. X will have covered himself adequately by electing to report the case; he will then have to answer such questions as may be put to him, both by the Coroner and subsequently by prosecuting counsel or the Judge; the fact that he did not at first say, "I was aware that Dr. A and the accused had together committed the offence" would be accepted as a proper part of any practitioner's sense of professional secrecy. He is in no way condoning the act by taking no steps to see the offenders punished in law.

We publish below the two replies which appear to us best to grasp the intricacies of the situation and offer the soundest advice, one to which we

award the guinea, in serious vein, and the second, in facetious manner, which "also ran"—very strongly.

* * *

Winning solution by Dr. Gavin Thurston, 54, Elms Road, Clapham Common, S.W.4.

Dr. X has no witness of Dr. A's incrimination of the nurse. As the statement was made before she became seriously ill it would be inadmissible as a dying declaration. Dr. X, then, has no proof of the nurse's complicity, and if he informs the police he may find himself faced with flat denial and a suit for slander.

Should the nurse confess at any time, Dr. X may plead that professional secrets should only be revealed to competent authority, such as a Court of Law. This defence is not recognised for the medical profession, but it is unlikely that further proceedings would be taken against him. It is no part of a doctor s duty to conceal crime, but, in this case, there could be no proof of crime without the nurse's confession.

Should the nurse beg Dr. X to hold his tongue, he may assent, pointing out that he must answer all questions truthfully in a judicial inquiry.

It is possible that the nurse might accuse Dr. X himself of having procured the abortion, which would put him in a most awkward position. When Dr. A showed signs of serious illness he should most certainly have called in a colleague to see her.

Dr. X's statutory duty is to appraise the Coroner of the death, as having taken place in suspicious circumstances. Incidentally, this relieves him of much of the responsibility. At the inquest it will be assumed that Dr. A had enough knowledge to induce the abortion unaided, though Dr. X must be sure that this was possible as regards the method adopted. Dr. X can make a simple statement as to the cause of death, and must answer such questions as are put to him, but need not volunteer information about the nurse. It is unlikely that she will be suspected, unless she is known as an abortionist.

* * *

Solution No. 2 by T. H. Hills, of Guy's Hospital.

Dr. X lit an Abdulla; the occasion called for one. "Nurse," said he, "we must discuss this business. Get this clear from the start—there's not going to be any dirty work with the death certificate. I'll have to put down the true cause of death and notify the Coroner, and there's going to be an inquest. Now the Coroner is going to want to know just how this all happened. If we tell him the truth, you'll find yourself sewing mail-bags or whatever it is they do. I don't want that to happen, and I'm prepared to help you all I can. I have only Dr. A's word that you actually helped her to do this, and Dr. A. is dead. Now she could with her knowledge have done it all for herself, and then told you and called me in. It would be difficult but not impossible. I well remember an actress we had in at Guy's—but that's another story. At the inquest I shall have to tell them that she told me how she did it, but that is all. It's really more plausable than the truth. You will have little to say, as in these circumstances the matter hardly concerns you at all. Luckily for me there was no one else present when Dr. A told me about it, and she might well have kept your name out of it from the start, but don't do it again." "No," said the nurse, "I don't think I will."

Reviews

A Hundred Years of Astronomy. By R. L. WATERFIELD. Published by Messrs. Gerald Duckworth & Co. Pp. 526, 8vo. *Price* 21*s.*

IT may not be the business of Guy's to produce astronomers, but it can at least claim to have harboured a few in its time. So long ago as 1826 Sir James South, who had been dresser to Sir Astley Cooper, and who had forsaken a lucrative practice to devote himself to the observation of double stars, was awarded the Gold Medal of the Royal Astronomical Society, and a few years later became President of that body.

Dr. R. L. Waterfield, the latest upholder of the South tradition (though he has by no means abandoned medical work), has for many years been well known for his observational work in astronomy, and is at present a member of the Council of the Royal Astronomical Society.

He has now produced a most excellent book, of more than 500 pages, which will certainly earn the general commendation of astronomers; and we feel sure that Guy's men, whether astronomers or not, will be among the first to appreciate and applaud this evidence of versatility on the part of one of their colleagues.

The aim of Dr. Waterfield's book, as is implied by its title, is to give a comprehensive review of the progress of astronomy in all its departments

during the past century. The task before the author was necessarily a formidable one, for the period mentioned has witnessed vast strides in our knowledge of the heavens, and the subject has been greatly widened by excursions into pure physics which were not dreamed of in the days of the Herschels.

Nevertheless Dr. Waterfield has, we think, been most successful in his survey, which is, moreover, written in so simple and lucid a manner as to be interesting and intelligible to the general reader with no more than a very superficial knowledge of the subject—and it is free from mathematics!

Probably the book will be of most value to those who, having had their interest aroused by some of the popular books and magazine articles that have appeared in recent years, wish to dig a little below the surface and learn for themselves the simple physical principles on which the spectacular results of modern astronomy have been based.

Two important and useful features are a chronological table of astronomical events of the past hundred years and an excellent bibliography for the benefit of those who may wish to go either more generally or more deeply into the subject.

Our one regret is that the price of this book is rather high, and we fear that this may be an obstacle to the wide circulation which it most certainly deserves.

W. H. S.

Correspondence

"Some Common Ailments"

To the Editor of the GAZETTE

SIR,—The clinical lecture by Sir Harley Wimpole, reported in the *Gazette* of May 7th, clearly indicates the importance of avoiding dogmatic statements of opinion on medical matters. Sir Harley said that *staravtio nocturnus* was essentially a disease confined to the class of people who hold subordinate but responsible positions. The latest reported case, however, is that of a professional man—a veterinary surgeon—who contracted a mild form of the disease, the chief symptom being his inability to remember, although the other common symptoms were present also. Eventually, his forgetting to visit a sick mare brought matters to a head, and he consulted a physician. *Starvatio nocturnus* was diagnosed, and a short course of the usual treatment soon restored him to his former good health. The mare also recovered, although the report does not say whether she was suffering from the same complaint.

It will be noticed that the disease in this case followed the normal course, the only point of interest being the occupation of the patient.

It is to be hoped that in his future lectures Sir Harley will take greater care to verify his data, particularly when dealing with such a newly discovered and apparently widespread complaint as *percussio occlusus*.

Yours, etc.,

JAMES HOPPOLE.

Cowherds and Obstetricians

To the Editor of the GAZETTE

Dear Sir,

The cowman, a merry man was he,
For surely, why not? a father was to be.
No man is prouder when the day doth come,
His wife retires, to bring him forth a son.

Of course the doctors clever be to-day;
They think so far ahead, and often say:
"Indeed, dear Sir, you'll very happy be—
A boy, mark you; why yes, indeed; you'll see!"

It's on the way, or in the bag,
As poacher often said, the gay old wag,
When he laid his trap and open snare
For rabbit, mouse and, maybe, hare.

The cowman waited sad for many a day;
He watched them till the field and cut the hay.
He used the telephone, pressed button A,
Reply was always, "Wife O.K."

"No son for you has yet arrived;
Just wait awhile, you'll be survived."
His face grew longer as he milked his Mary Ann,
And often crossed his lips that long word "D—!"

Each night he lay awake for many an hour,
Waited and waited till his face grew sour.
Each Wednesday afternoon they saw him go
To see his dear wife, who was still "Just so!"

Poor cowman, in that month of bliss,
Found out that there were many things amiss.
But now he's realised full long
There's something more distracting than a song.

All hours, through the night, the cry,
The bottle's empty, the mouth is dry.
And Mary Ann in calf she be
Till when ? must wait—to see.

Yours, etc.,

M. E. DAVIES.

Guy's Hospital, S.E.1.

Students and Residents' Accommodation

To the Editor of the GAZETTE

SIR,—It may be of interest to readers of the *Gazette* to learn that the conditions under which students and residents live has become more generally known. On two separate occasions in the past year I have been consulted by my patients as to which hospital their sons should enter. On my suggesting Guy's the reply is, "But the Residents' living quarters are so bad."

I visited the College recently and was horrified to find that, to add to the squalor and discomfort, a particularly pernicious type of gas stove has been installed in the residents' rooms, calculated to give out a high percentage of carbon monoxide. On talking to one of the residents I found that by lighting this fire first thing in the morning and leaving it on till late at night, keeping the windows tightly closed, a warm, soporific atmosphere can be produced, which renders one slightly less conscious of one's discomforts.

I notice that in to-day's paper an appeal has been launched for a new Nurses' Home.

Until the Hospital assumes responsibility for the welfare of her students and residents, and raises the standard of their living quarters, regretfully I must abandon recommending any parent, interested in the welfare of his son, to enter him at Guy's. I must confess that I would not send my own son to live in these conditions.

Yours, etc.,

JAMES RICKETT.

21, East Street,
Havant, Hants.

Sport

Rugby

SEASON 1937-38

THE season of 1937-38 being completed, I have pleasure as in past years in enclosing Chart and Statistics of the 1st XV.

While a poor season, it is pleasing to note that the figures show an improvement on last season's. Two more games were played, the total being 36 games, of which four games were Hospital Cup games.

The whole of the fixture list was completed, and two games were played in the West at Easter ; since, however, these games were played by a touring side, the results are not included in the records.

With regard to the points, these were 5 points less than last season, but 72 points less were scored against us. On examination of the figures, our scoring was strangely almost as last season :—

1936-37.—Tries, 49 ; tries converted, 21 ; penalty goals, 6 ; dropped goals, 2.

1937-38.—Tries, 48 ; tries converted, 20 ; penalty goals, 6 ; dropped goals, 2.

Of the points against us, it is a pity that of the 536, 81 were scored by penalty goals (27).

Again we reached the Final of the Hospital Cup, only again to be beaten by St. Mary's, this year by 18 clear points.

We failed to score on ten occasions, while our opponents only failed on three occasions.

Our highest score was 28 points, against Catford Bridge, and the highest score against us was 51, by Birkenhead Park (last season the Park took 40 points from us in a game). It should be recorded that Dick again played for Scotland.

Forty-two players have taken part in 1st XV games as follows : *Crabb (33) ; *Yerbury, *Crawford (32) ; *Kynaston, *Nicholson (30) ; Baxter, *Allen (28) ; *Forbes (26) ; Douglas (25) ; Williams (24) ; *Stanyon-Jacques, *Dick (22) ; *Fletcher, *Babrow (18) ; *Darke, Vidot (15) ; Sechiari (14) ; *Kolesar (13) ; Eustace, Rockford, Ziervogel, Steytler, *Morey (9) ; *Kark, Morris (8) ; Turner (7) ; Sharp, Halamandres (6) ; Birks, Plowman, Lewis (5) ; Burnford, Drew (4) ; Rowley, Bulstrode (3) ; Chapman, Walters, McCall, Hanson, Hartley, Luyt and

Fuller (1). The players marked * played in the Hospital Cup Final.

The following have scored tries.—Dick (11); Baxter (7); Stanyon-Jacques (5); Babrow (4); Morey, Fletcher, Allen (3); Douglas, Morris (2); and Crawford, Sechiari, Kynaston, Kolesar, Eustace, Forbes, Crabb and Hanson (1).

The following have scored goals :—

	Tries Converted	*Penalty Goals*	*Dropped Goals*
Dick	8	2	—
Kark	4	1	—
Kynaston	5	2	—
Luyt	1	—	—
Crawford	1	—	—
Plowman	1	1	—
Allen	—	—	1
Babrow	—	—	1

making a total of 48 tries, 20 tries converted, 6 penalty goals and 2 dropped goals. Total, 210 points.

Our opponents' score was as follows : 113 tries, 48 tries converted, 27 penalty goals, and 5 dropped goals, making a total of 536 points.

Therefore the completed figures are : Played, 36; won, 11; drawn, 1; lost, 24; points for, 210; points against, 536. Average points per game : For, 5.83; against, 14.8; percentage, 32 per cent.

The following table gives the records from 1920-21 :—

Season.	*P.*	*W.*	*D.*	*L.*	*Points. F.*	*A.*	*Per cent.*
1920-21	27	19	2	6	600	96	74.07
1921-22	35	26	2	7	467	162	77.0
1922-23	32	19	4	9	343	203	65.62
1923-24	27	13	3	11	285	151	53.4
1924-25	31	16	3	12	291	230	56.45
1925-26	29	14	3	12	235	234	53.5
1926-27	34	18	3	13	371	294	57.35
1927-28	26	12	3	11	190	206	52.0
1928-29	30	11	1	18	220	404	38.3
1929-30	28	12	1	15	322	311	44.7
1930-31	28	13	2	13	306	289	50.0
1931-32	28	14	0	14	295	324	50.0
1932-33	30	14	1	15	347	347	48.3
1933-34	32	14	2	16	355	373	46.87
1934-35	30	10	1	19	287	518	35.0
1935-36	33	10	1	22	286	484	31.8
1936-37	34	7	1	26	215	608	22.0
1937-38	36	11	1	24	210	536	32.0

ROY C. HOLLOWAY,

Hon. Life Member, G.H.C.U.

JUNIOR FIFTEENS

SEASON 1937-38

THE Junior Sides have had a full season under the new scheme of "grading," but it cannot be said that it met with the success hoped for. It is true that a number of younger players came under the notice of the "spotters" and promoted, but the greatest problem was the constitution of the 2nd "A" XV, who had much trouble in raising a side. The apathy in this side was appalling. It may have been due to the fact that they could never rely on the team selected owing to last-minute scratchings and promotions, with the result that they often found themselves on Saturday morning with just a handful of men. It seems such a pity that players cannot inform their Team Captains and Secretaries beforehand whether they will be available if selected. It leads to the disorganisation of all the Junior Fifteens, resulting in one or two matches being scratched at the last moment, which is most unfair to opponents.

For various reasons owing to hard grounds, opponents scratching, or our own inability to raise a side, there were 62 matches cancelled, 24 of which were Wednesday fixtures out of 58 arranged. At first sight it appears that there are too many Wednesday fixtures, or that there are not sufficient really keen rugger players for seven Fifteens.

Apart from these failings, the Junior Fifteens had a pleasant season, results were satisfactory, but most improvement on the previous season was made by the 1st "B" XV. Several new men proved themselves to be really good players who should do well, and as the Hospital can no longer rely on the ready-made player of experience, it would be as well to keep an eye on some of these Juniors.

The following reports have been received from the various team secretaries :—

The "A" Fifteen were somewhat disappointed in not bringing back the Junior Cup to Guy's. After a most successful season, they were beaten by St. Mary's in the Final.

In the first half of the season they were well provided with seasoned players, many of whom had played regularly last season and who had at some time or another turned out for the 1st XV. These, a fly-half and a centre three-quarter, formed the backbone of the team, which in the second half of the season won ten matches in a row and reached the Final of the Junior Cup.

Some of the best wins were against Blackheath "A," Hendon Police College, United Services "A" and Woodford "A." In the Cup matches the team were most fortunate in having the leadership of M. R. Kark, A. J. Drew being in

GUY'S HOSPITAL R.F.C.

SEASON 1937-8

(For) Total Points **210**

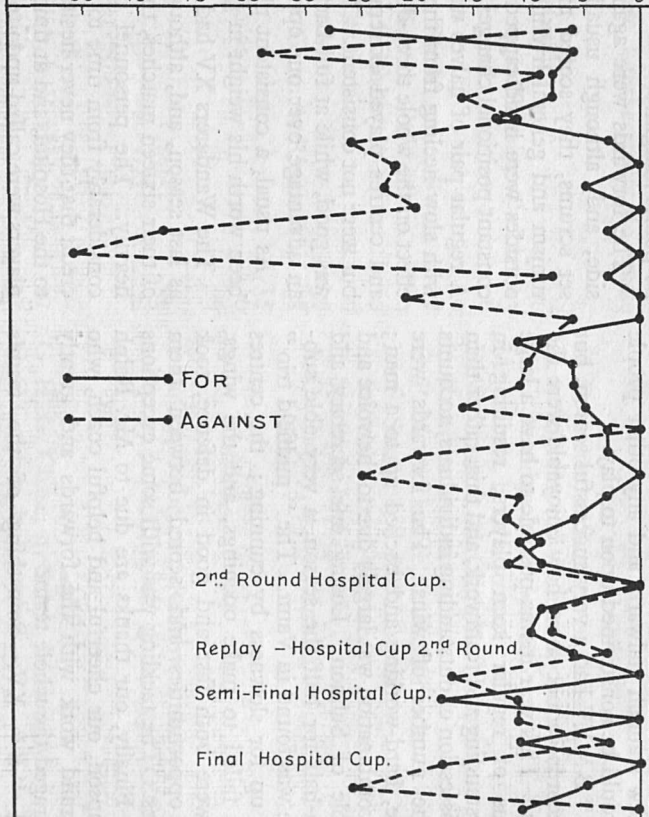
Average Points per Match **5·83**

Percentage **32%**

PLAYED	WON	DRAWN	LOST
36	11	1	24

(Against) Total Points **536**

Average Points per Match **14·8**



OPPONENTS	DATE	Gd	SCORE Points For	A	G	T	Against G	T	GOALS	TRIES
Catford Bridge	1937 Sept 18	H	28	6	5	1	–	2	Dick 4, Plowman.	Allen, Douglas, Crawford, Baxter, Sechiari, Dick.
Coventry	" 25	A	6	34	1+	1	5+◊	4	Dick,+	Baxter.
United Services	Oct. 2	A	8	9	2+	–	3+++	–	Plowman,+ Dick.	Dick.
London Irish	" 8	H	8	16	1	1	4◊+++	1	Dick.	Dick, Morris.
Plymouth Albion	" 16	H	13	11	2	1	1	2	Kark 2.	Kynaston, Dick, Morris.
Harlequins	" 23	A	3	26	1+	–	3++	5	Kark.+	
O.M.T.S.	" 30	H	–	22	–	–	2	4		
Cambridge Unv.	Nov. 3	A	5	23	1	–	3◊	3	Dick.	Fletcher.
Old Blues	" 6	H	–	20	–	–	4+++	2		
London Unv.	" 10	H	3	43	–	1	10 5f	1		Baxter.
Birkenhead Park	" 13	A	–	51	–	–	6	7		
Rosslyn Park	" 20	H	3	8	1+	–	1	1	Dick.+	
Aberavon	" 27	H	–	21	–	–	3	2		
Richmond	Dec. 4	A	–	6	–	–	2++	–		
Army	" 11	H	11	9	1	2	2++	1	Kark.	Dick 2, Allen.
Devonport Serv.	" 18	A	6	10	1+	1	2	–	Kynaston.+	Stanyon - Jaques.
Old Alleynians	1938 Jan. 1	A	6	11	–	2	1	2		Baxter, Dick.
Birkenhead Park	" 8	H	5	16	1	–	3+	1	Dick.	Stanyon - Jaques.
Devonport Serv.	" 15	H	3	–	–	1	–	–		Kolesar.
Coventry	" 22	H	3	20	–	1	3◊	2		Dick.
Cambridge Unv.	" 26	H	–	25	–	–	4++	3		
Gloucester	" 29	A	3	11	–	1	2+	1		Baxter.
Neath	Feb. 5	H	6	12	1+	1	2◊	1	Kynaston.+	Babrow.
R.A.F	" 9	H	11	9	1	2	–	3	Crawford.	Baxter, Dick, Fletcher.
Aberavon	" 12	A	9	12	2◊	–	–	4	Babrow,◊ Kynaston.	Dick.
King's Coll. Hosp.	" 17	N	0	0	–	–	–	–		
Old Millhillians	" 19	H	9	8	2◊	–	2+	–	Kynaston, Allen.◊	Dick.
Old Cranleighans	" 26	A	10	8	2	–	1	1	Kynaston 2.	Morey, Eustace.
King's Coll. Hosp.	Mar. 1	N	6	3	–	2	–	1		Babrow, Forbes.
Plymouth	" 5	A	0	17	–	–	1	4		
St. Thomas's Hosp.	" 8	N	18	11	–	6	1	2		Morey 2, Stanyon-Jaques 3, Crabb.
Bedford	" 12	H	–	11	–	–	1	2		
Old Leysians	" 19	H	11	3	1	2	–	1	Kark.	Douglas, Allen, Fletcher.
St. Mary's Hosp.	" 23	N	0	18	–	–	3	1		
Old Paulines	" 26	A	5	26	1	–	5+	1	Kynaston.	Hanson.
Old Whitgiftians	April 2	A	11	–	1	2	–	–	Luyt.	Baxter, Babrow 2.

◊ Dropped Goal + Penalty Goal

Eire. In the second and third rounds they beat University College Hospital and St. Thomas's (the holders), and, considering the excellent spirit and performances in the latter part of the season, it was all the more regrettable that they could not rise to the occasion against St. Mary's, for on former showing the side should have given them a more difficult task.

2nd " A " XV.—The report of the fortunes of this side for the season 1937-38 might well be taken verbatim from that of last season. In short, a grand start followed by a gradual decline into a complete shambles.

Note the team's new name—2nd " A " instead of Ex. " A " XV. The idea behind this change was twofold :—

a. Psychological.

b. Compositional.

a. Under the title 2nd " A," players were to become aware of a new dignity.

b. The side was now to become a nursery for promising young players with a view to their subsequent grading into their appropriate team.

It follows that no player would necessarily retain his place in the side for any length of time ; in other words, there was no clique.

Unfortunately this scheme failed, not through lack of co-operation of other team officials, but through an innate desire of the individual to play for his own pet team. The result was an impasse, and the side degenerated once more into a nucleus of a few staunch stalwarts and any other people who could be constrained upon to play.

1st " B " XV had a very successful season, but the records cannot show how enjoyable were the games. This year it was possible to have a large nucleus of regular keen players, resulting in understanding and teamwork, and this, rather than the possession of outstanding individuals, accounts for the number of wins. The forwards were mobile, hard-working and backed up to a man ; their combination was largely due to the voice and example of Salmon. Losing our secretary and scrum-half for half the season, a very able substitute was found in Vann. The " midfield trio " made up for slowness by cunning ; the centres rarely failed to make openings, and the wings, who were both fast and good in defence, took their opportunities and scored between them 54 tries. The tackling was with some exceptions bad. Finally, our thanks are due to Mr. Ralph Thompson, our cheerful and helpful coach, who did grand work with the forwards and greatly encouraged the whole team.

2nd " B " XV.—Something of the team's characteristics can be gathered from a brief study of the bare results. Although the side won but five more matches than they lost, yet they scored 255 points more than they yielded. This was because the team often won well, never lost badly.

On only one occasion did the Fifteen fail to score. This was against Saracens, with whom, on a swamped ground, we fought a pointless draw.

Sound performances in the season were a victory over Morris Motors 1st XV, achieved for the first time for some years, and two hard and close encounters with our old friends the London Old Dovorians.

Most spectacular was the victory over the Old Mitchamians 1st XV at Mitcham Stadium, watched by several hundred people in the vast stands, who had been lured by the name of Guy's placarded outside with no mention that the team concerned was not the 1st XV.

During the season we had the honour to provide several men to the 1st and " A " Fifteens from time to time, and welcomed two freshmen who played consistently in every game throughout the season, and persuaded at least one gallant veteran to scorn retirement for one more glad season. May there be many more !

3rd " B " XV.—The final results are not a very good indication of how the 3rd " B " XV fared during the past season. In six matches the decision depended upon a single goal, and, although the fixture list had been revised and strengthened, in each of another six games the side won by a 20-points margin.

The forwards were again the backbone of the side, and, although usually outweighted in the set scrums, they scored many points by opportunism and general liveliness in the loose. The outsides were handicapped by injuries, and, with constant positional changes, could not settle down. A regular pair of halves was not found, and this, with slow heeling from the scrum, had an erratic effect on the whole three-quarter line. The wings and centres played extremely well on occasions, but were not consistent. Their defence, however, was good, while at full-back we nearly always had an advantage over our opponents.

As usual, a consistent place-kicker would have been worth his weight in gold.

The Wanderers XV had much the same results as last season, and, although they won only four of their sixteen matches, they were seldom beaten heavily. The personnel of their team changed considerably from time to time, but it is to their credit that they never hesitated to play newcomers to the Hospital, and at times a few of their regular players were called upon to other sides. Towards the end of the season they took over the Wednesday fixtures arranged for the 2nd " A."

SUMMARY OF RESULTS

	P.	W.	L.	D.	Points. F.	A.
"A" XV	35	21	14	0	435	330
2nd "A" XV	21	9	11	1	273	244
1st "B" XV	25	18	5	2	417	210
2nd "B" XV	26	15	10	1	393	133
3rd "B" XV	21	12	8	1	260	168
Wanders XV	16	4	11	1	67	161

Cricket

GUY'S v. PRIVATE BANKS

GUY'S opened the season at Catford Bridge on Saturday, April 30th, in weather which would have been cold for rugger. In fact, certain features of the game were only too reminiscent of recent rugger occurrences.

The Hospital opened shakily, looking as if they had not seen a bat this season. The score reached 27 for 2, and then there ensued an amazing debacle. Five wickets fell without the addition of a single run. But since Black had taken three wickets in one over, Foster smote him for 18 runs in the next, including two sixes. Somehow the score reached 83.

Such a total gave the bowlers but a minimal chance, and some good batting by Black and Robertson took the Banks' past our score for the loss of one wicket only. They were assisted by some deplorable efforts at catching. The Banks then batted on rather lightheartedly to make 167 for 7 wickets.

Guy's

G. H. G. Chase, c. Gunn, b. Blessley	13
A. C. C. Hughes, b. Hayles	6
L. G. Morey, b. Hayles	0
P. H. Birks, c. Pitts, b. Black	7
G. O'Gorman, b. Blessley	0
T. H. Eustace, c. Pitts, b. Black	0
H. A. Thomas, b. Black	0
H. D. Foster, b. Richards	30
C. L. T. McClintock, c. Gunn, b. Richards	8
S. A. Coffey, not out	13
F. W. Rushby, b. Richards	0
Extras	6
Total	83

Private Banks

C. R. Black, b. McClintock	46
J. G. Richards, c. Hughes, b. Rushby	10
A. A. Robertson, b. Foster	37
P. R. S. Hayles, b. Rushby	18
M. Dawkins, b. Rushby	20
E. J. Foster, b. Coffey	19
G. D. Tilburn, b. Coffey	7
G. C. Gunn	—
C. W. Teasdale, not out	1
D. A. Blessley	—
C. W. Pitts	—
Extras	9
Total for 7 wickets	167

GUY'S v. THE WANDERERS

AT Honor Oak Park, on Wednesday, May 4th, a good opening stand of 80 by Parker and Ingram put the Wanderers well on the way to a fair score, which was only marred by several unaccepted chances. Some good bowling by O'Gorman put a different complexion on the game, and lunch was taken at 95 for 4. After the interval, though Ransome batted well and with Blackmore added 61 for the sixth wicket, the tail failed to wag, and they were out for 211.

Ransome's speed was something more than we had met before, and he met with instant success. In fact, only a sterling defensive innings of the "Seven-Hour Century" brand by Hughes saved the Hospital from complete disgrace. As it was, a defeat by 120 runs was not inspiring. It can but be hoped that Guy's will soon strike better batting form, and thus rise from this slough of despond.

The Wanderers

G. P. Parker, c. Warner, b. O'Gorman	27
E. A. Ingram, c. McClintock, b. O'Gorman	59
P. C. Surridge, b. O'Gorman	0
M. Jaubert, b. O'Gorman	0
F. W. Clark, c. McClintock, b. Rushby	9
Y. Ransome, not out	55
G. P. M. Blackmore, b. McClintock	40
W. S. Surridge, b. McClintock	1
A. S. Soole, l.b.w., b. Morey	1
E. Searle, b. McClintock	7
A. C. Gadsby, b. McClintock	0
Extras	12
Total	211

Coffey, 0 for 22; Rushby, 1 for 35; Morey, 1 for 29; McClintock, 4 for 53; O'Gorman, 4 for 54.

Guy's

G. H. G. Chase, st. Searle, b. Gadsby	19
G. O'Gorman, b. Ransome	6
H. D. Foster, b. Ransome	0
L. G. Morey, b. Ransome	0

P. H. Birks, l.b.w., b. Surridge	12
A. C. C. Hughes, not out	20
A. V. Hurst, b. Blackmore	7
C. L. T. McClintock, b. Ingram	9
J. M. Warner, b. Ingram	0
S. A. Coffey, b. Surridge	3
F. W. Rushby, b. Surridge	1
Extras	14
Total	91

Ransome, 3 for 7; Ingram, 2 for 19; Surridge, 3 for 20; Gadsby, 1 for 21; Blackmore, 1 for 11.

GUY'S v. GRAVESEND

AT Gravesend, on Saturday, May 7th, the Hospital batting appeared rejuvenated from the start. Chase looked well set when bowled at 61, and then Birks joined Morey, and these two were not parted till 173 runs were on the board, and after two hours and ten minutes' batting, Morey declared at 188 for 5, he himself being 89 not out. Birks had compiled an accurate 40.

Gravesend were left 105 minutes to get the runs, and to begin with they were well pegged back by the Guy's bowlers. But Kemsley hit out well, and McClintock proved very expensive, although he was getting wickets. With about 25 minutes to go in four overs, it was unfortunate that Holland was badly dropped, as he scored a further 6—4—4 before being taken in the same position. Wooldridge then caught Kemsley on the long-off boundary and Guy's had a chance, but the last over came with only four runs needed, and these were duly struck, so that Gravesend won by four wickets.

Guy's

A. C. C. Hughes, b. Broad	13
G. O'Gorman, b. Longman	6
G. H. G. Chase, b. Broad	23
L. G. Morey, not out	89
P. H. Birks, st. Mitchell, b. Eve	40
D. N. Fuller, b. Eve	0
A. V. Hurst, not out	6
H. A. Thomas	—
T. Wooldridge	—
C. L. T. McClintock	—
S. A. Coffey	—
Extras	11
Total for 5 wickets	188

H. Eve, 0 for 30; Langman, 1 for 35; Broad, 2 for 45; J. Eve, 2 for 47; Brisley, 0 for 17.

Gravesend

H. G. F. Eve, b. Coffey	12
J. R. Ragge, b. McClintock	37
R. W. Kemsley, c. Wooldridge, b. O'Gorman	77
J. A. H. Langman, c. Coffey, b. McClintock	4
M. Gunn, c. Coffey, b. McClintock	21
A. C. Holland, c. Fuller, b. McClintock	24
W. A. C. Brisley, not out	3
E. Parkinson, not out	6
J. A. Eve	—
L. N. Mitchell	—
T. R. Broad	—
Extras	11
Total for 6 wickets	195

Coffey, 1 for 31; Morey, 0 for 24; McClintock, 4 for 87; O'Gorman, 1 for 49.

Golf

ON Wednesday, May 4th, we played our first match of the season, against Wimbledon Park Golf Club. It was a very pleasant evening, and, though we were badly beaten, a most enjoyable time was had by all.

Results were as follows :—

Guy's		*Wimbledon Park*	
T. N. Praat (1 up)	1	Stanley Davis	0
J. C. Ritchie (2 up)	1	J. Roddan	0
P. Wilson	0	G. Kenyon (6/4)	1
K. S. William	0	W. L. Barber (2/1)	1
S. G. M'Callin	0	T. V. Wharenby (3/1)	1
J. Head	0	J. S. Blake (4/3)	1
W. James	0	Dr. Howlett (6/5)	1
H. Nicholls	0	W. Harvey (1 up)	1
Total	2	Total	6

Result.—Wimbledon Park won by 6 points to 2.

A Medal Competition, held at Beckenham Golf Club on Wednesday, April 27th, was won by T. N. Praat with a score of 78 less 7=71. P. Wilson was second with 79 less 7=72.

The Spring Meeting of the United Hospitals' Golfing Society was held at West Hill Golf Club on Thursday, May 5th. The Hospital Cup, for the three best 36 holes scratch scores from one hospital, was won by St. Thomas's with a score of 510.

Swimming Club

GUY'S v. LENSBURY S.C.

ON Friday, 29th April, Guy's defeated Lensbury Swimming Club at water polo by 4 goals to 2 at Lavington Street Baths.

The game was not of a very high standard. The Hospital side was an experimental one and was not well together. Lack of training was evident, but that is natural so early in the season. With a little training and practice together the team should do well this season.

Lensbury were first to score due to a misunderstanding between the Hospital forwards letting an opponent come right through the centre. The Hospital marking improved and Smit and Powell scored goals. Just before half-time Lensbury equalised.

In the second half the game slowed considerably. Neither side showed much combined attacking power. Individually Smit played well and was very close with several hard shots. Before time he beat the Lensbury goalkeeper twice; both shots were very good indeed. Horan showed considerable improvement in goal for Guy's.

Team.—D. G. Horan, F. Boutwood, M. M McCall, C. Halamandres, J. Smit, J. Powell, S. P. Vorster.

GUY'S v. CUSTOMS & EXCISE S.C.

ON Monday, 2nd May, the Hospital had a swimming and water-polo match against Customs and Excise Swimming Club. After a very evenly contested swimming match the Hospital led by 1 point. But they lost the water polo 4—5, for which 3 points were awarded.

In the swimming two newcomers to the Hospital did quite well; F. M. Dunn and K. Jowett both swam with great determination, and are an asset to the Club. The best race of the evening was the 200 yards free style. A yard separated the four swimmers throughout the lead changing hands several times. J. Powell drew ahead in the last length to win by 1 foot. F. M. Dunn won the plunging by more than 2 feet. The Hospital was much too strong in the free style relay and won by a quarter-length. However, they were beaten in the medley relay by a touch.

The water polo commenced disastrously for us, and we were two goals down in as many minutes. The Hospital side then settled down and, after good combination, J. Smit scored. Lensbury scored a third goal before half-time.

In the second half the Hospital fought back with determination and attacked strongly. J. Smit scored twice, one shot being a very clever back flip which the goalkeeper made no attempt to save. Lensbury then scored again. McCall equalised for the Hospital after breaking away from a pass from Halamandres. On time, Longdon snatched the lead for Lensbury, scoring their fifth and his third goal.

The Hospital gave their best display this season. The marking and passing was much improved. The defence was sounder, D. Horan's passing being particularly good. The forwards played together well, especially J. Smit, who has been outstanding in every game this season.

Team.—D. G. Horan, J. C. Bulstrode, A. M. McCall, C. Halamandres, J. Smit, F. M. Dunn, S. P. Vorster.

Results were as follows:—

200 yards.—1. J. Powell (Guy's); 2. Jones (C. and E.). Time, 2 min. 31 sec.

100 yards.—1. Irving (C. and E.); 2. Jowett (Guy's). Time, 62 sec.

66 yards.—1. Wallace (C. and E.); 2. D. Horan (Guy's). Time, 40-2/5 sec.

Diving.—1. Norman (C. and E.); 2. C. Halamandres (Guy's).

Plunging.—1. F. Dunn (Guy's); 2. F. Belsten (C. and E.). Distance, 57 ft. 6 in.

Medley Relay (3×1 length).—1. Customs and Excise; 2. Guy's.

Free Style Relay.—1. Guy's; 2. Customs and Excise.

Water Polo.—Customs and Excise, 5 (Longdon, 3; Irving, 2); Guy's, 4 (Smit, 3; McCall, 1).

Result.—Customs and Excise, 38 points; Guy's, 36 points.

Rowing

THE Inter-Hospitals' Regatta takes place this year at Putney on Wednesday, May 25th, commencing at 2.30 p.m. The programme includes eight events, all of which will be keenly contested. In the past few years the support given to this fixture has been practically negligible, last year in particular a mere handful of Guy's supporters adorning the tow-path.

The Regatta as an inter-hospitals event deserves your support, and it is hoped that this year as many as possible will attend and also bring their friends.

An excellent view of the races can be obtained from the verandah of the Thames Rowing Club or from the launches which follow each event. For the latter a small charge is made, but a first-rate view of the rowing is made possible.

Putney can be reached from London Bridge by Southern Electric via Waterloo, or to Putney Bridge by District Line from the Monument.

Now remember the date: Wednesday, May 25th, and be at Putney to give your crews the support they deserve.

Hospital Information, etc.

Notice

Guy's Hospital Musical & Operatic Society

ANNUAL GENERAL MEETING

The Annual General Meeting of the Musical and Operatic Society will be held in the Physiological Theatre on Friday, May 27th, at 5.15 p.m.

A special appeal to attend is made to everybody anxious to restore the Society to its former high position in amateur operatics.

Never at any period during the whole of its history has the Society suffered so much from the lack of male members. Efforts are now being made to revive its fortunes, and arrangements are being made to hold a concert in November. With such a large number of students at the Hospital it seems most pathetic that the Society cannot rely on at least thirty really keen men to support it. A large attendance at the Annual General Meeting will give proof that the Society is definitely a necessary part of Hospital life.

Pass List

CONJOINT.

FINAL EXAMINATION.

April, 1938.

Pathology.

E. B. Berry
L. H. Boyd
J. Burton
*T. T. Davies
R. L. Evans
J. P. Henry
H. Jackson
P. J. M. Kent
*L. E. Milton
G. J. F. Rees
W. R. D. Wiggins
G. S. Wigley
*D. S. Wilson

Midwifery.

J. W. S. Harvey
J. P. Henry
R. O. Holland
E. L. Moll
T. E. Ooi
R. F. Parfitt
J. R. E. Richardson
*W. P. B. Stonehouse
H. J. Voss
F. L. D. Young

Surgery.

*R. D. Blachford
E. I. Davis
W. F. Frazer
*G. N. L. Godber
*A. C. Greene
J. P. Henry
E. J. F. Hinde
G. L. Humphreys
*H. E. Moody
L. Nancekievill
*K. R. D. Porter
J. H. Rake
*J. H. Smart
N. G. Straschun
*A. C. R. Wakeman
P. Wilson
*C. F. Wright

Medicine.

D. A. G. Brown
*K. Chartikavanij
*G. B. Collyer
D. R. Levinson
*B. Maddison
*L. E. Milton
*T. T. Davies
B. Djanogli
*W. J. Drummond
*R. L. Evans
*F. E. Falconer
*G. N. L. Godber
*A. C. Greene
*W. S. Hacon
*S. J. Hopkins
*M. A. Imray
D. J. A. Alban-Jones
*H. M. R. Knight
W. F. Mindham
*H. E. Moody
*J. P. J. O'Keefe
*K. R. D. Porter
M. O. Richardson
*L. F. W. Salmon
*J. H. Smart
R. W. Stevenson
*C. J. Stewart
*R. A. R. Topping
*A. J. Walker
*J. S. F. Watson

* Have now completed the examination.

ROYAL COLLEGE OF PHYSICIANS.

M.R.C.P.

April, 1938.

C. S. Darke.

ROYAL COLLEGE OF SURGEONS.

L.D.S.

SECOND EXAMINATION.

Medicine, General Pathology and Bacteriology.

March, 1938.

H. Brock
B. A. Bharucha
F. Butterfield
N. F. Clarke
G. W. Dorr
J. A. Dossor
M. R. C. Kemp
L. G. Morgan
G. G. G. Rees
R. K. Roberts
H. W. Walker-Smith
A. Southwell
J. H. Thomson
C. W. Turner
L. A. Wakeford
E. R. J. Walmsley

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE AND SURGERY.

A. W. Box.

Papers by Guy's Men

P. M. F. Bishop. Clinical experiment in œstrin. *Brit. M. J.*, 1938, i, 939.

Robert Bradlaw. The importance of dental conditions in neuralgic pain. *Med. Pr. and Circ.*, 1938, cxcvi, 381.

T. A. B. Harris. Close anæsthesia. *Med. Pr. and Circ.* (*Symposium* 2), 1938 (May 4th), Vol. 196, No. 5165.

Archibald D. Marston. Basal narcotics. *Ibid.*

Changes of Address

D. P. King, M.B., B.Ch., 51, Portland Place, W.1. *Welbeck* 5178.

Marriages

ELLIOTT—LOWE.—On April 23rd, 1938, at the Parish Church, Shiplake, near Henley-on-Thames, John Edwin Elliott, only son of Edgar Lionel Elliott (Guy's, 1910), grandson of Edgar Elliott (Guy's, 1881) and great-grandson of John Hayward (Guy's, 1860), to Annie Elizabeth Stanley, elder daughter of Francis Stanley Lowe, of Brook End, Shiplake.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — *4th June* 1938 — *Number* 1301

PASSIM

TOGETHER with most of England and his wife, we are off to the Derby, and we confess at this moment of going to press that our concern is more whether Scottish Union will be among the first three at Epsom than whether our readers will obtain their fortnightly money's worth. Consequently our fare this week is distinctly parochial, but we can promise you without reservation that if Scottish Union should romp home at 15 to 2 that you may look forward in the next issue to a literary effort of surpassing merit—in fact, more than somewhat.

SOME ten years ago—long before we had attained our present plurality and when, to our shame, Guy's meant but a name without connotation—we were seated in an hotel in the distant town of Seattle, Washington, U.S.A. Now Seattle, unlike most American towns and despite its close proximity to the Pacific, possesses one feature which was adapted to make one feel entirely at home, and this feature is its weather. When it rained there it did so with the studied moderation shown in our Islands, slightly, lightly, or what you will, but with a grim persistence. At the time of which we speak the similarity was complete. It had scarcely stopped raining for a week, and our spirits were consequently at their lowest ebb. Some fearsome event was needed to shake us from our doldrums, and this was soon forthcoming in the shape of a concert announcement arranged for that very night. This was no ordinary entertainment, but one at no cost to be missed, for it consisted of a recital to be given by twenty-six pianists who were simultaneously to play upon an equal number of " full-sized concert grand pianofortes." Of the concert we are sorry to say we remember but little, but one particular item will always remain with us—a simultaneous performance of two Chopin Studies each played by thirteen stalwart executants.

In our last issue we published an appeal by the secretary of the Hospital Musical and Operatic Society for more support—an appeal which we readily endorse, and we have conceived the idea of a concert so novel that we feel it would attract the musical aristocracy of London into its audience. Twenty-six pianos are not available, and indeed, if produced, could scarcely be contained even in our new all-electric Pathology Theatre, but why not twenty-six harmonia? Surely this would prove a novelty such as even our American friends have never produced.

Our suggestion is not merely a fanciful one, for we have the supply of harmonia at hand—indeed, we have discovered the Valhalla to which all good Guy's harmonia go when their days are past. These Elysian fields are on the fourth floor of Hunt's House on the site of the eagerly-waited Children's Ward, and provide the right atmosphere of musty seclusion, reminiscent of a Cathedral triforium, and indeed must be to the harmonium what Worthing is to the retired Anglo-Indian colonel—a home from home. If the Musical and Operatic Society could be induced to adopt our scheme—and we fear that a vast quantity of first aid would have to be rendered—a double purpose would be served. A new musical medium would have been produced—think of a Concerto Grosso for seventeen harmonia—and not less important, one further step would have been taken to making way for our new Children's Ward, so very long awaited.

WE publish elsewhere a letter from the Warden on the subject of the College, and all will rejoice that some improvement in living conditions is indeed at last in sight. We must not count on much, for funds are low and any structural alterations very expensive, but any betterment, however slight, will be appreciated by those who have to make the College their living place.

Being this week parochial-minded we would turn our eye even more inward, and inquire into the eating conditions in the College.

There is manifestly insufficient accommodation for all the students who wish to eat in the dining-room as we have constantly remarked, and it remains a thorny problem as to how this situation could in any way be improved. Until more space is available we shall have to put up with the present overcrowding. What we feel could be improved are the conditions in which the regular customers do eat. Speaking bluntly, we have noticed of late what amounts to an internecine warfare between the customers and the catering staff, and we have no hesitation in saying that this strife is due to the application of certain rules which may have had a *raison d'etre* some years ago, but have very little or none to-day. We do not propose to go into detail, although, if challenged, we will produce a formidable list, but we think the time has come when all the existing rules should come under consideration with a view to their revision. The Restaurant management and staff, of course, are but carrying out the instructions which are laid down for them, and it must be as disagreeable for them to enforce an unpopular rule as it is for the customer to submit to it. What we would know is: Are these hampering regulations really necessary? If they are, then we are sure everyone will accept them in good will. If not, we feel a great deal of ill-feeling and bickering could be removed by their annulment.

WE read the other day with just a little shudder, in an account of some lawsuit or other, of how the nursing staff of a hospital—provided that they wore rubber-soled shoes—were allowed of a wet Saturday afternoon to play ping-pong in the mortuary. There was about this something sinister, some touch of the macabre, that reminded us in a way of Huysmans or Edgar Allan Poe. In some hospitals mortuaries are more prominent than others; it is traditional that the patient should enter brightly through the main entrance, but that his corpse should leave discreetly by the back. At our Hospital, though the Clubs' Union have not yet thought of using it to augment recreational facilities, the mortuary is off the beaten track, and entrance is gained to it from the streets by the War Memorial Gate. This is the scene of many a long and lonely vigil.

How often have we not seen the hearse (in these dull days, alas, usually motor and without those nodding plumes) stand patiently with mutes attendant while the driver explores how he may get in! For after five o'clock in the winter, and at various times in the summer, the gates are shut. Everyone is familiar with the ritual. First there is the wait at the gate, the wait simple. The driver, trusting fellow, thinks that someone will have witnessed his arrival and confidently expects the gates, welcoming, to be thrown open wide. Then there is a period of doubt; the mutes break their silence with anxious colloquy. Then there is the active phase; the driver descends and rattles at the gates, but these refuse to yield. Then there is the vocal phase and there are cries of "Porter, ho, porter!" Then there is the phase of despair. And sometimes an intelligent hearse-man will make his way inquiring to the College, whence the porter will ring the Front Lodge, or else a journey will be made on foot or hearse-back to the Front Lodge by the driver or an obliging mute. Nor does it happen only to the hearses; again and again have we seen cars gaily caparisoned and bound for Nuffield House wait hourly by the pavement with none at hand to help. Truly much time is wasted.

It would seem a simple remedy to have some kind of communication between the Side Gate and the Front Lodge, such as might be afforded, for example, by an electric bell. This, activated by simple pressure, might bring to the notice of the Front Lodge porters that admittance was being sought, and the porter could investigate the matter without undue delay. It is true that the bell would have to be placed high on the pillar, but this could surely be done. Of course, one child by climbing on another's back could still . . . but then it would not happen more than once in a while, and, taken by and large with a broad view, the trouble saved all round would be considerable.

There is, no doubt, a certain fascination about bell-ringing; it is charming to think that even among the Pre-Raphaelites, that inexorable group of moralists, the run-away ring was a not infrequent after-dinner pastime, so that, while Holman Hunt kept "Cave," Rossetti would ring a merry peal and off the pair would scamper. It must have been the thought of this that, when a young lady told us recently that she was fond of bell-ringing, made us reply to her bewilderment, "And do you often get caught?" But there, at the moment, with the demolition of the condemned Maze Pond, the number of neighbouring children has gone down, and, as we say, the run-away ring would not be frequent. To wait for a quarter of an hour or so may be a trifling annoyance, rain or no rain, but to fit some communication between the Side Gate and the Front Lodge need not be so difficult a matter.

WE have received the following letter, whose contents we would strongly endorse :—

I should be glad if you could give me what publicity you can in your issue of the *Gazette* next before Saturday, June 18th, on which date the United Hospitals' Athletic Championships are being held.

This year, with G. G. T. Fletcher (Guy's) I have the trying job of organising this meeting, and as it is fast returning to be rated one of the best in the country for the time of year, I am anxious to get the best possible support from spectators, and would thus be glad of your co-operation to this end.

As you know, Guy's are the holders of the Championship Shield for the past three years, and after the Hospital's convincing win in the London University Championships, I feel confident in forecasting a fourth win.

In addition to the team interest, the individual standard of competitors will be very high—five men have represented their country, and over twice that number have county caps, while there are as many "blues" from the two senior Universities.

The meeting is at the University of London ground, Motspur Park, commencing 2.30 p.m., Saturday, June 18th.

SIR Arthur Hurst is again organising a Car Park at Heath End, Ascot, for the benefit of the Appeal Fund. Cost per day, 5*s*. Tickets may be obtained from Sir Arthur Hurst, Heath End, Ascot, or Appeal Secretary, Guy's Hospital.

A map showing the proper route to the Park is shown on page 214.

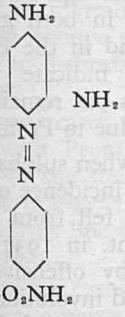
The Present Position of Prontosil

By Ivor Thomas, Esq., M.R.C.S.

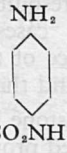
IN the following article I have attempted to bring together a few of the facts known about Prontosil and its allied compounds, with special reference to its mode of action, the indications for its use, dosage, the complications of its administration, and the methods by which those complications may be avoided.

CONSTITUTION

There are three drugs which are of importance which form the basis of the Prontosil group. The first two are azo dyes, that is, they contain the azo benzene molecule. Prontosil Red is relatively insoluble, and is the hydrochloride of 4 sulphamido 2 : 4 dramino benzene. It was the drug used by Prof. Domagk in his original experiments.



Prontosil Red



Sulphanilamide

Prontosil soluble is the second azo dye compound, and is the dye in common use for injection. It has the rather imposing formula of 4 : sulphamido phenyl azo 7 acetyl amino, 1 oxynaphthaline, 3 : 6 disulphonic acid, of which it is the disodium salt. The third compound is much simpler, being the sulphamide derivative of aniline. It is known as para aminophenyl sulphonamide, sulphanilamide or Prontosil album. It is a white substance insoluble in water. There are, of course, many proprietary forms of these drugs on the market with names calculated to increase the confusion. The soluble red dye which may be injected and which will be referred to as Prontosil soluble and the white insoluble sulphanilamide form the basis of them all.

MODE OF ACTION

The mode of action of these drugs is not yet completely settled. Experiments in vitro have shown that :—

1. Streptococci were able to multiply in a 1/50th dilution of Prontosil soluble with human serum.

2. A 1/1000th dilution of sulphanilamide in a fluid medium delayed the growth of small numbers of streptococci, but 1/100th dilution did not prevent multiplication of a large number of streptococci.

3. A 1/18000th dilution of sulphanilamide with human serum killed a considerable number of streptococci.

4. The blood of patients treated with either Prontosil or sulphanilamide was found to have an increased bactericidal effect against streptococci.

If the above results are accepted (some American and most German workers have failed to demonstrate any effect of sulphanilamide on streptococci in vitro even in the presence of serum) they indicate that Prontosil soluble has no effect on streptococci outside the body, being broken down in the body to sulphanilamide or a substance related to it, which is then destructive to streptococci.

In an original investigation by Colebrook in 1936, it was shown that of eight mice infected intraperitoneally with a fixed number of streptococci and then given Prontosil subcutaneously, only three died, and of six control mice five died. A prophylactic effect was also demonstrated, twelve mice were given a single injection of Prontosil subcutaneously, and four days later a dose of streptococci intraperitoneally; of these two died. In a control series not given Prontosil, nine died.

Two theories are at present advanced to explain the action of Prontosil. The simplest is that supported by Tréfouel, Nitti and Bovet, who maintain that the action is wholly due to the bactericidal and bacteriostatic effects of sulphanilamide. Levaditi, however, maintains that the drugs are converted in the body into a more active substance. Evidence in support of this is (*a*) that sulphanilamide injected intraperitoneally in animals in experimental peritonitis failed to cure the condition which was, however, cured by oral administration; (*b*) that sulphanilamide acts better in the presence of serum; (*c*) that some compounds used experimentally, although antiseptic outside the body, have little therapeutic action.

Further, it has been shown that, although Prontosil contains an equivalent of only one-sixth of sulphanilamide, it is equally, if not more, effective clinically. Gley and Girard have shown that carboxy sulphamido chrysoidin is twice as powerful as Prontosil, and yet produces only an equal quantity of sulphanilamide. Levaditi here therefore suggested that the azo dye concentrates the drug in the most advantageous position in the body; an action which pure sulphanilamide may lack. The relation of the reticulo endothelial system to this has not yet been determined. It has been suggested also that sulphanilamide may have some protective effect against toxin.

INDICATIONS FOR PRONTOSIL

The indications for Prontosil are not yet definite. The diseases in which it is proved of use may increase with experience or, on the other hand, it may become limited in application. It has been most widely used in the diseases due to the pathogenic cocci, namely streptococci, pneumococci, meningococci, and gonococci. But it has been also used in bacilli coli infections and such widely separated diseases as typhoid, undulant fever and gas gangrene. A good deal of the work at the present time is of little value, owing to the scattered nature of the cases and the inadequacy of control experiments.

It has been given in many streptococcal infections—for example, puerperal infections, erysipelas, scarlet fever, tonsillitis, septicæmia, peritonitis, otitis media and meningitis. The results in puerperal fever due to the hæmolytic streptococcus was summaried by Gibberd in October, 1937, from figures obtained at Queen Charlotte's Hospital in the years 1934-5 and 1936-7. The cases in 1936-7 were treated for the first time by the "new chemotherapy." The total mortality fell from 20 to 4.7 per cent., the mortality from septicæmia fell from 40 to 20 per cent. Peritonitis was found in 29 cases out of 210 in 1934-5, and in one case in 157 in 1936-7. He drew the following conclusions :—

"1. There was a considerable fall in total mortality.

"2. A reduction in the proportion of cases in which infection spread beyond the limits of the birth canal . . .

"3. A significant fall in the mortality rate of proved septicæmia. . . .

"4. A relative infrequency with which peritonitis was found post-mortem. . . ."

The possibility was discussed whether these effects were due to the new drugs or to a decrease in invasiveness of the streptococcus. It was, however, further shown that the duration of illness in cases in which spread had occurred outside the birth canal to an equal extent was diminished in those treated with Prontosil. The virulence of the streptococcus is measured in terms of its invasiveness. Although invasion has occurred to an equal extent in both groups of cases, resolution is more rapid in the Prontosil-treated cases. This would indicate that the virulence of the streptococcus has remained constant, and that recovery was due to Prontosil.

Johnstone has shown that when sulphanilamide was used prophylactically the incidence of morbid puerperia (B.M.A. standard) fell from 3.06 per cent. in 1936 to 1.9 per cent. in 1937. Slight uterine infection indicated by offensive lochia, uterine tenderness and delayed involution showed a decrease from 6.7 to 6.2 per cent. Infection in these cases was due to such varied organisms as bacillus coli, staphylococci, the non-hæmolytic streptococcus and B. proteus.

Snodgrass and Anderson in 1937 carried out a carefully controlled series of 270 cases of erysipelas, half of which were treated with ultra-violet light and the other half with sulphanilamide. It was shown that the sulphanilamide secured curtailment in the spread of the lesion, the duration of pyrexia and toxæmia. The incidence of recurrence and complications was diminished. An earlier series of 312 cases had shown a diminution of mortality from 6.6 to 2.5 per cent., and a diminution of incidence of complications from 34.2 to 23.1 per cent.

Up to 1936 the mortality from streptococcal meningitis ranged from 91.6 to 100 per cent., the cases being treated with sera, repeated lumbar puncture and blood transfusions. Forty-eight cases of streptococcal meningitis, in 38 of which hæmolytic streptococci were grown from cerebro-spinal fluid, the remainder being due to non-hæmolytic streptococci and atypical forms, were treated with Prontosil aided by lumbar puncture and blood transfusion in some cases; 31 of the 38 cases recovered and eight of the ten due to non-hæmolytic streptococci. It was shown that the cerebro-spinal fluid rapidly became sterile, sometimes in 24 hours.

A small series of cases of acute tonsillitis were reported by Perkins in 1937. He demonstrated (*a*) a reduction in the period of hospitalisation, (*b*) a shortened period of convalescence.

Animal experiment has indicated that Prontosil has some effect in Type III pneumococcal infections. This type is sometimes known as the streptococcus mucosus. In America, nine cases of Type III pneumonia were treated with Prontosil, and there were ten controls. Of the nine cases two died, and eight of the control cases died. The average age of the Prontosil-treated cases was lower than that of the controls, who included a case of asthma, a myocardial degeneration and an alcoholic. In another series of 33 cases at Pittsburg the mortality was 22 per cent., against an average mortality of 74 per cent. Further controlled groups of Type III pneumonias are required to determine the efficacy of this form of treatment.

Fourteen cases of pneumococcal meningitis treated with Prontosil produced five recoveries. In view of the statement in Price's Textbook of Medicine in 1937 that a recovery has never been recorded, this line of treatment also needs further investigation.

Twenty-six cases of meningococcal meningitis have been reported with 25 recoveries (96 per cent.). Most of these cases received antimeningococcal serum as well. The cerebro-spinal fluid became sterile in 24 to 72 hours. According to Brown, who investigated the protective effect of sulphanilamide and sera on mice infected with meningococci, both agents together have a greater protective effect than either alone.

Cokkinis reported a series of 250 cases of gonorrhœa in the *British Medical Journal* in 1937. He stated that with sulphanilamide he was able to produce a clinical cure in a large percentage of acute and chronic cases in seven days or less. A small group of cases were, however, entirely resistant to the drug. It is only fair to state, however, that others have not confirmed these findings. Anwyl Davies states that the drug is ineffective in the treatment of acute gonorrhœa. Commander Crean, on the other hand, reports 100 cases with only six failures and three relapses. Cokkinis maintains that to be effective the drug must be given in potentially toxic amounts.

Meave Kenny and others reported favourably on the action of sulphanilamide in B. coli infections of the urinary tract. In a series of 42 cases, 16 of which were pyelitis of pregnancy, and all having urinary symptoms, it was found that the drug brought about a rapid remission of symptoms (48 hours), and the urine became sterile in 2-5 days. One failure is reported. In this case mandelic acid was also unsuccessful. Weiser reported uniformly successful results in chronic urinary infections. It has been advanced as an argument against this form of treatment that any new urinary antiseptic is successful for a short while, the keen interest the physician takes in the urine appearing to have some magical effect on the condition.

DOSAGE AND METHOD OF ADMINISTRATION

At the present time two forms only of the drug are used extensively. The red dye in its soluble form known as Prontosil soluble and the white insoluble drug sulphanilamide. The former is given by injection and the latter by mouth in the form of tablets.

Prontosil soluble is a 2.5 or 5 per cent. aqueous solution of the drug in either 5 c.c. or 10 c.c. ampoules. It has been given intravenously, intramuscularly, subcutaneously, intrathecally, intrapleurally and intraperitoneally. For practical purposes the intramuscular route is the best. Intravenous injection may cause unpleasant effects such as nausea and vomiting, and it has been shown to be rapidly absorbed from the muscles. It was thought that the local application of the drug might be an advantage. It was therefore injected intrathecally, intrapleurally and intraperitoneally. This is unnecessary and dangerous, because :—

1. Marshall has shown that sulphanilamide is freely excreted in all tissue fluids. Jauveneck and Gueffray have shown that all three forms of Prontosil are excreted into the cerebro-spinal fluid. The dye compounds only reach 1/120th of the serum level, whereas sulphanilamide reaches a level almost equal to that in the serum. When the meninges are inflamed, however, all three forms pass freely into the cerebro-spinal fluid.

2. Nicholson reported the effect of Prontosil on streptococcal empyema in rabbits. The treated animals died earlier than the controls and no sterility of the empyema was produced.

3. Experiments already mentioned show that Prontosil has no effect on the streptococcus unless the drug is broken down in the body to sulphanilamide or a substance related to it.

The drug is best given by a combined intramuscular injection of Prontosil and the oral administration of sulphanilamide tablets. In less serious cases tablets by mouth are sufficient. The tablets are at present made up in grs. 7.5 (.5 grammes). They should be taken after meals with a copious draught of water, having been crushed in the mouth. Tabs. i-ii t.d.s. or four-hourly in a dose varying from 3 to 12 tablets a day (1.5 to 6 grammes) should be given. This is combined with injections of prontosil in 10 to 20 c.c. doses twice or three times a day, giving a daily total of 20 to 60 c.c. The average is 40 c.c., but as much as 90 c.c. may be given. It has been shown that Prontosil is excreted rapidly. It should therefore be given in evenly spaced doses to maintain a constant high level. In serious cases combined injection and tablets should be continued until the temperature has fallen and clinical improvement taken place. Dosage is then continued with tablets alone. The total amount of drug used should be kept within definite limits. According to Cokkinis it should not exceed 60-70 grammes, and treatment should not be prolonged over 21 days. For children half and for infants quarter of the adult doses should be given. In a small series of cases of erysipelas Snodgrass and Anderson showed that massive dosage at the beginning as opposed to smaller equal dosage had no advantage, and was accompanied by more toxic symptoms.

COMPLICATIONS

1. Cyanosis, sulphæmoglobinæmia, methæmoglobinæmia.
2. Drug "fever."
3. Agranulocytosis.
4. Acute hæmolytic anæmia.
5. Optic neuritis.
6. Skin eruptions.

Colebrook in 1936 treated 64 puerperal fever cases with original coloured compounds and had only three cases showing toxic effects. In a later series treated with sulphanilamide alone roughly 50 per cent. had cyanosis. On the Continent, where sulphanilamide is used very little and where dosage on the whole is smaller, toxic effects rarely occur. It is possible, therefore, that sulphanilamide is more toxic than the coloured compounds and no more effective. This requires confirmation with a controlled series of cases treated with each of the two groups of cases.

1. Sulphæmoglobinæmia and allied changes in the blood.—Cokkinis has reported that a rich pinkish colour suffusing the cheeks, forehead and neck was almost constant in his cases, although neither sulphæmoglobinæmia (SHb) or methæmoglobinæmia (MHb) could be detected with the spectroscope. Sulphæmoglobinæmia produces a lavender blue colour, and methæmoglobinæmia a bluish chocolate colour first noticed in the lips. These changes may be accompanied by headache, constipation and occasionally emotional instability. Many cases have now been reported in the literature (Colebrook, 1936; Discombe, 1937; Paton and Eaton, 1937, etc.). Diagnosis can be made by examination of the shed blood with a spectroscope, when characteristic absorption bands are seen. Transillumination of the lobe of the ear viewed with a direct vision spectroscope may also reveal the condition. In very anæmic patients in whom cyanosis cannot occur the condition may not be detected.

Sulphæmoglobinæmia and methæmoglobinæmia differ in that varying doses may produce the former which tends to persist and not be relieved by oxygen, whereas the latter requires large dosage, is transient (if the drug is omitted), and is relieved by oxygen. Sulphæmoglobinæmia is an addition product similar to carboxyhæmoglobin, but methæmoglobinæmia arises from oxidation of the iron-containing portion of hæmoglobin. Drugs containing the grouping C_6H_5N, such as phenacetin, pyridium and prontosil, are capable of producing methæmoglobinæmia and of exercising a catalytic action in the formation of sulphæmoglobinæmia in the presence of H_2S. The latter is absorbed in excess when from the action of purges unabsorbed food substances are hurried into the colon. It is probable that the sulphates are worse in this respect since they produce watery fæces in the colon in which bacteria more readily grow and from which more H_2S is absorbed. Hammond has reported a case in which sulphæmoglobinæmia and methæmoglobinæmia occurred simultaneously. Only one fatal case of sulphæmoglobinæmia has been reported by Frost.

2. Other minor by-effects of the drug are occasionally noticed such as malaise, nausea, vomiting, diarrhœa, headache, dizziness, urinary eructation and slight jaundice. Treatment with the Prontosil drugs may be continued *cautiously* in sulphæmoglobinæmia and methæmoglobinæmia in these conditions. In the more serious conditions to be described the drug must be stopped. To prevent sulphæmoglobinæmia, Archer and Discombe recommend: (1) avoidance of sulphates, (2) a low residue diet containing few eggs, (3) regular doses of liquid paraffin, (4) avoidance of phenacetin. In addition, the following precautions should be taken. The drugs should be used with care in anæmic patients. In those seriously ill, several white counts should be performed. Exposure to sunlight, high dosage and prolonged administration (over fourteen days) should be avoided.

3. Agranulocytosis. Although infrequent cases have been reported in the literature by Young, Model and Plumer, in which death occurred, and a case by Jennings and Southwell-Sander with recovery large doses of the drug were given. The clinical features were rapidly increasing, malaise and pyrexia, and in some cases an ulcerative or gangrenous condition of the mouth and pharynx. A white count shows a leucopenia chiefly of the polymorphonuclear cells. Treatment is removal of the drug, blood transfusion and injections of pentonucleotide.

4. Acute hæmolytic anæmia. Cases have been reported by Harvey and Janeway, Jennings and Southwell-Sander, and Kohn in which, following relatively small doses of the drug, an anæmia associated with varying degrees of jaundice and excess of urobilin in the urine has developed. In most cases recovery occurred with removal of the drug and blood transfusion.

5. Skin eruptions. The type of eruption has varied much in reported cases. It may be vesicular, papular, macular, hæmorrhagic or urticarial. It is usually accompanied by pruritis and sometimes by pyrexia, malaise and nausea. There is a tendency for it to occur in areas exposed to sunlight and later a spread to unexposed parts. The drug should be omitted.

6. A case of optic neuritis with recovery was reported by Bucy.

SUMMARY

1. There are three Prontosil compounds. Two azo dyes, the so-called red insoluble form and the soluble form which is in common use for infection. The white insoluble sulphanilamide given by mouth.

2. The mode of action is still unknown. Prontosil soluble has little action on streptococci outside the body, being broken down in the body to sulphanilamide or a substance closely related to it, which, aided by the body, then kills streptococci.

3. It is of proved value in hæmolytic streptococcal infections, particularly puerperal fever, erysipelas and meningitis. Further investigation is required as to their action in pneumococcal infections (Type III), gonorrhœa, meningococcal meningitis and B. coli pyelitis.

4. Dosage. Prontosil soluble intramuscularly in doses 20-60 c.c. daily and sulphanilamide by mouth as tablets (3-12 daily). Total dosage not to exceed 60 grammes or be prolonged over 21 days.

5. Dosage may be continued cautiously in sulphæmoglobinæmia and methæmoglobinæmia, and when there is nausea, malaise, etc. Serious conditions, such as agranulocytosis and acute anæmia, should be watched for and require removal of the drug.

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American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

September 12th, Sunday

I HAD a much better night, though the shoulder has definitely gone back on its best. Breakfast excellent, my neighbours two old ladies from Philadelphia, and an old gentleman from Connecticut. We have a fairly strong head wind with a long swell, into which the boat pitches with a steady motion; no roll. The sky is grey, with drizzle and a few gleams of sun.

I went to church at 11 a.m. in the smoke-room. The service was taken by an old gentleman, who is, I believe, not a clergyman, but who had the manner perfectly, and a wonderful power of speaking in excellent phrases without ever getting hung up. The prayer book seems very like ours. We had the magnificent Christmas lesson from Luke " and there were in the same country," but starting several verses before this to include Joseph and Mary's arrival at Jerusalem, with, I think, advantage to the effect of the whole. The hymns were dreadful, rhyming instructions to God in the worst taste. Then we had a sermon. The text was from the lesson, " Unto you is born this day in the city of David a Saviour who is Christ the Lord." The preacher then asked, " What sort of a man was this Saviour? "—and he proceeded to tell us, bringing up without the slightest hesitation quotations from nearly every gospel and apostle and from most of the prophets. In fact, he gave a complete résumé of the Christian religion—a most wonderful effort.

The rest of the day passed with difficulty. At noon we had our Bulletin :—

Position.—Lat., 55° 34′ N.
Long. 11° 30′ W.
Distance run.—233 miles from Belfast.
Average speed.—15.43 knots.

The alternatives are sitting in the reading-room, sitting in the writing-room, sitting in the smoking-room, sitting on deck, or pacing the deck. The steward says 18 times round the deck is one mile, but I think it is more like $1\frac{1}{4}$. The wind rises steadily and the swell gets longer, the crests higher and the intervals wider. It is an interesting sight to me. Waves I know of all sizes, and there are plenty of them, but they are superimposed on these immense and gently sloping ridges and hollows, slopes that are so long and gradual that they seem to be hills and valleys of the land, and one feels that we plough through them, not that they move towards us. I keep on wondering how a Sharpie would fare. There are no steep waves to worry her, but would she plane down these long inclines, or would she lose the wind as she got in the hollows? Everything is grey and desolate, no birds, no life. In the evening a ship going the other way passed five to ten miles away; they say we are lucky if we see more than three ships on the crossing.

There are five lifeboats, all of steel and all on the patent davits. Forward on each side are two tubs, like Mary Ann, but with more the clumsy ends of a Dutchman; they are labelled to hold fifty each. Behind on each side are two lifeboats of normal shape scheduled for forty, and aft on the port side is a motor-boat. After seeing the crew at work for two days and the lifeboat drill yesterday, I should not feel too happy about an emergency.

September 13th, Monday

I hardly slept all night, the wind and sea continued to rise, and the pitching became more pronounced and more noisy. At times in a particularly violent lurch the whole boat would shudder. My alternative theories were (*a*) a direct punch on the bows from a wave, (*b*) the propellor coming out of the water. Towards morning these shudders stopped and the pitching settled down to yesterday evening's worst. On the whole she seems a very steady boat for her size. The night has laid out a lot of the passengers, and breakfast was not a good show-up.

At breakfast we had a sheet with the summary of the wireless news. It all looks thoroughly gloomy. What with a bad night, gloomy news, and just finishing MacDonald's " Patrol," I am not feeling my best. The one comfort is that, with a double room to myself and a shower, I seem to be better off than most here.

Our noon position was :—
Latitude.—54° 49′ N.
Longitude.—21° 53′ W.
Days run.—358 miles.
Average.—14.3 knots.

It is evident that last night's wind has slowed us.

The afternoon was a repetition of the day before, but a bit more windy and colder. I had about an hour in a deck-chair in the sun, but the rest of the afternoon and evening was perforce spent in talks, chiefly in the smoking-room. The " Judge " is permanently out of the picture, and

Young America is confined to his bunk for the day. Young England is a very nice lad, the better the more one sees of him, and, as with many Englishmen, though his face is an open book and he talks about himself all the time, I have yet no idea who he is or what he is about. He lives somewhere in Berkshire, and has an M.G. 1½ litres that he thought of bringing to the States; he is fond of horses and sails a bit (America, by the way, is also a keen sailor, but though he seems to know a lot about navigation he is no use at knots); he spent six to eight months in the States a couple of years ago, and is going to do the same this time, possibly also in a car. He has a camera, a cinema, and a tremendous collection of gramophone records, which he is continually playing on the smoking-room radiogram for the benefit of the company, mostly the rather better light music—Paul Robeson and so on.

A new character appears in the intense woman, who came on at Belfast. Age 30-40, bobbed, beret and trousers; on the heavy side. She has spent several months touring Central Europe—Denmark, Sweden, Poland, the fringe of Russia, and Austria—but it is not clear with what object. She seems so anxious for sympathy and attention, and looking to be included in any party or activity, one gets the impression that, once attached, she would be almost impossible to shake off. A woman to be avoided.

Quite otherwise are the "Duncan sisters," who are more delightful every day. Houston sisters would be a better name, as one is a natural blonde, the other a natural red-head. They are both something in a hospital, not nurses or massage, therefore probably office staff; what a fit there would be at Guy's if anybody looking like them came down the Colonnade! Very full of life and spirits, definitely pretty, extremely little make-up, plenty of pretty clothes, really simple and genuine, with not a trace of an eye on the gallery. They have just had a wonderful twelve days in London, and are off home. America, Jim, and the sisters obviously form a quartette, and the life and centre of the ship.

The novelist also improves with each encounter. I find she was on the stage, chucked it last year to write, and has enough money to keep herself, but not enough to prevent her trying to make a living. Her typing is self-taught and not a trade, and she has learned to think as she types. She is a striking figure; aquiline face always alive, large dark eyes, much but well made up to give the pale colour to set off dark eyes and red lips, favourite dress grey bell-bottomed trousers, double-breasted Tyrolean kind of coat, and grey felt deerstalker worn well back, with a shock of curls coming out below it; dramatic training appears in the attitude she adopts on a chair or sofa, an attitude of probably studied grace into which she falls by habit.

She is clearly a serious-minded girl, and a good talker. We had a round-table talk in the smoking-room on the usual subject of the last war and the next, and she adopted the idealist peace at any price attitude, with obvious qualms about its interpretation in detail. Very likeable.

The unpleasant men also need a revised estimate. I labelled them unpleasant partly because it was the instinctive judgment of most, partly because they were always tight. I find they are officers of a tramp line, on their way back to rejoin a ship that, once she sails, will be away two years. Their life is probably hell, and getting tight is perhaps the only thing to be done about it. With them is a tall golden-haired lad, whom one would put down as twenty-one, but who is only sixteen, and who is going to the same line as a cadet. I feel very sorry for him. He stands and drinks with the others, and seems to make no friends.

The passengers otherwise are sorting themselves out bit by bit as individuals, but not into characters. I gather on the whole that this is not comfortable travel, that most of them are thoroughly sick of the ship and the voyage, and that I am extraordinarily lucky in my nice cabin with privacy, lots of room and running water.

I sit at the doctor's table, and we meet from time to time at meals. His appearance is quite unusual. He is tall and spare, with the face of Adolph Menjou on which is planted a Kaiser Wilhelm moustache. He has watery blue eyes, perpetually raised eyebrows, and an expression of mixed surprise, aggression and stupor. He looks and talks as if he was (and he may be) always a bit blotto, with a slurred speech, sentences rushed out and a pause between them, and continually suppressed hiccups. He seems to know a lot about surgery, particularly orthopædics, and to have been to orthopædic congresses in America and Europe, having met several of our people. He has a city practice which, in some way, he combines with this, and I suspect he has taken a spell on the sea to try to keep off drink, but I may be maligning him. He is obviously an able man.

In the evening we had a cinema (talkie) in the smoking-room, a comic strip followed by "Accent on Adventure." As the clock was again put back an hour, we sat a long time in the smoke-room playing records and hearing all about America.

September 14th, Tuesday

After settling down in the afternoon, the wind again blew up in the night and we had plenty of crashes. Fortunately I was tired enough to sleep well, and only woke when a particularly bad smash seemed to knock us sideways. I therefore woke with a magnificent appetite, and had the best breakfast of my life—a half canteloupe melon, followed by porridge and scrambled eggs and bacon. I had missed porridge so far, as it is labelled "H.O. Oats."

The wind is a good deal more than yesterday, with white crests everywhere, and the rollers much steeper. By Sharpie standards it would be at any rate six rolls in the mainsail and a No. 6 jib, or about forty miles an hour. It gets worse as the days go on. Some of the sick have got over it, but I hear that some who have been ill since we started are in a bad way.

Noon position :—
Latitude.—53° 54′ N.
Longitude.—30° 42′ W.
Days run.—313 miles.
Average speed.—12.52 knots.
This is a bad drop even from yesterday.

The sea got worse and worse, and, from being dead ahead, came slowly round to starboard bow. I spent about an hour with America forward, he trying to get photographs of good waves. The best ones come green over the fo'c'sle head, a considerable height, and some swept in through the break for the fore cargo deck, but it was very hard to spot which would be a winner. It was very much a question of timing. A really enormous roller would come along that seemed at least 50 feet from trough to crest, but we had reached the bottom of our dip as we got to it, and our bows would rise in a ferocious last-minue leap and just clear it. Two close together gave the best effect, whatever their size, so that the bows came crash down into the crest of the second.

In the evening another good meal and chat with the doctor. The food is good, but the milk is going sour now. The stewards matey rather than efficient, and the cabin steward gives me about five minutes' work a day. After dinner race game—fell rather flat; then efforts at dancing in the lurch.

September 15th, Wednesday

Woke to a horrible roll. On getting up, however, found that the wind had nearly gone, and we are running nearly abeam to the swell of yesterday's wind. It should die. Morning's news even more gloomy and it looks as if I may have to come straight home when I reach America.

Noonday position :—
Latitude.—51° 24′.
Longitude.—38° 48′.
Days run.—328 miles.
Average speed.—13.12 knots.
Distance from Belfast.—1,232 miles.

After writing up diary I went on deck. Deck tennis in full swing. Played two sets; beaten by America, 6—2, and beat authoress, 6—4; good for hand, arm and fat, but a bit tiring.

Most of the afternoon I spent with a cutting-out party of kids. They had been making paper houses, and had an excellent saucer of home-made paste. I chipped in with horse and cart, menagerie, etc., and the old stunt of babies putting out tongues. The table attracted all sorts of visitors, and we had many temporary additions for work or advice. America contributed a wonderful motor car. This brings in new people—two little girls twelve and eight, from "way down South," looking as if they might have a dash of colour, but delightful kids, wonderfully able to stick to one job, and with a nice mother. Vincent, a boy of ten, whose mother is ill all the time, so that he is a terror at loose ends; and a girl who made the paste, who turns out to be a nurse at Long Island. This afternoon we had boat drill—pretty slipshod, and the engine in the motor-boat is a dreadful old wreck that can only just be started and made to run. There was about an hour of fog, otherwise an uneventful run. This evening there will be a cinema.

September 16th, Thursday

To-day's noon position :—
Latitude.—48° 29′.
Longitude.—48° 10′.
Day's run.—402 miles.
Average speed.—16.1 knots.
Distance.—Belfast, 1,634 miles.
Boston, 1,060
is most cheering and suggests we shall not be very late. Last night and all to-day have been fine, except for intermittent fog, which has meant the hooter going a lot of the time. I had three sets of deck tennis this morning. Lunch was made amusing, if a little difficult, by the doctor, who was completely fuddled. He walks perfectly straight, but got into an interminable pointless narrative about how a London surgeon was rude to him in the theatre, delivered very slowly with extreme pauses to emphasize points which never seemed to come.

The "sisters" start to pall definitely. They are very simple and natural, but girlishness unrelieved does not go very far. The novelist, on the other hand, improves with every contact,

and I am pretty sure she must be a person of some importance. Apparently she ran by herself for three years in New York a venture something like Old Vic, and made a very near success of it.

In the evening, " Bingo," a gambling game of numbers on a card, apparently very popular in the States. After that Jim's records and dancing. A sticky lino floor with a lurching ship, not too good; powder out of the question on a democratic boat as it would mean work for the stewards. America, a bit solemn, and would not dance, but a real good fellow. The " sisters " walk through an incredible succession of double whiskies, and are all for dancing. Jim delightful, serious, ragging, always exactly right. Party made up by Chief Engineer, a young lad who looks and dances like a gigolo, but seems a good fellow. The intense woman in a dreadful jumper of the Blackheath colours, the young nurse, and two indefinite quiet ladies who dance well. The doctor comes in and is persuaded to take the floor. He is in his usual condition, with full control of his limbs, partial of his speech, and none of his face, which is set in a fatuous smile of angelic happiness. He does the most wonderful pirouettes round the room by himself—very funny, but a little pathetic. God help the sick, and keep us off surgery!

September 17th, Friday

Fog again this morning, but a calm sea. We are said to be off Newfoundland Banks.

Mid-day :—

Latitude.—45° 39′.

Longitude.—56° 39′.

Day's run.—396 miles.

Average speed.—15.8 knots.

Distance from Boston, 664 miles.
Belfast, 2,030 miles.

Deck tennis, reading, cutting out with kids, cinema, make up the day. The only new discovery is that the " Judge " is a pure Turk and a Mahommedan, though white with ginger hair, a British subject, and Cambridge.

September 18th, Saturday

Last day on the ship breaks fine and warm. Sea really smooth and we go along at a good pace. Fog comes up from time to time and, near land, is more alarming. During the morning two tramps, piled high with timber, pass close, going to Newfoundland. We come across an absurdly small motor fishing boat laying nets, and make a loop to avoid them; they have a dinghy half a mile away, and it seems strange, after a week of unpeopled ocean, to imagine these tiny craft about. Through glasses one can see land abeam on the starboard.

There is a sweep for the day's run, last figure. Sister No. 1 wins it with 0 (390) and stands drinks round the smoke-room. I must try to remember the two stewards: the deck steward, white hair and moustache, deaf and rheumatic, pretty surly to start with, but a sterling and kindly fellow when he knows you; and Ernie, the bar steward, small with beady eyes behind huge magnifying glasses and a walrus moustache. Ernie seems to work twenty-two hours a day, a comedian, and in the democratic spirit of the *Daisy* comes out on the floor to do a tap dance solo when he has the time, and brings out a fund of incredibly dirty stories and rhymes.

Deck tennis in the afternoon, and then the " sisters " give a party in their cabin, still on the proceeds of the sweep. Sherry *ad lib.*, *hors d'œuvres* (new on the boat), America brings cigars. The " sisters " in their best frocks. This night is the " Captain's dinner," *i.e.*, caps and musical instruments are given out, alcohol flows, and there is plenty of noise. The three " nasty men," now ascended pretty high in the boat's scale, turn trumps by giving up their table to our party of five and taking a small one. Terrific noise our end, largely Jim. The poor Captain sits with a bunch of old women, all making feeble jokes and looking silly in caps. Afterwards the gramophone goes upstairs and dancing goes strong. Too much drink for my taste, and some people get definitely decontrolled. On deck most of the time, and to bed as the row subsides.

(*To be continued.*)

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Some Common Ailments—II.

A Clinical Lecture by Sir Harley Wimpole, M.A. (Andaman), D.Sc. (Perim), M.D. (Tristan d' Acunha), Hon. LL.D. (Spitzbergen).

(Under the Auspices of the Neo-Post-Graduate Brotherhood)

GENTLEMEN,—My lecture to-day is on *Odor Corporis*, or Lever's Disease, also known colloquially as " B.O."

The history of this distressing complaint is probably coeval with that of the human race. Graduates of our Older Universities who are familiar with the writings of Marcus Aurelius will no doubt recall that in a discourse on arrogance he reminded his disciples of the inadvisability of rebuking the unfortunate subjects of *axillæ odoriferæ* before first making certain that they themselves were free from the complaint—pointing out that just, honourable and upright citizenship is not incompatible with this unfortunate ailment. You may verify this truth for yourselves in the course of a few visits to political meetings and other places of amusement, in any of our great industrial cities.

There is little doubt but that it has been prevalent in this country since woad, as an article of attire, became *démodé*. In the Middle Ages it assumed epidemic proportions, and it corrosive effect upon the armour worn by gentlemen of the period, said to have been responsible for the high incidence of javelin wounds during the Crusades, may be clearly seen in the great national collections.

A careful search of contemporary literature down the ages from the time of Marcus Aurelius to the twentieth century has been singularly unproductive of records of the condition. It was doubtless too commonplace to be considered deserving of mention.

In " Coriolanus," you may remember that Shakespeare puts the following words into the mouth of the hero of the play :—

" You common cry of curs
Whose breath I hate as reek o' the rotten fens ! "

It has been urged by some authorities that the word " breath " had the same meaning as " whiff," and that for all practical purposes they were interchangeable in Shakespeare's day.

Interest was aroused in the present century by the researches of Lever and his co-workers, to whom we owe most of our present knowledge. Before the publication of their results, such knowledge as we possessed was based on conjecture and probability.

ÆTIOLOGY

Age.—Lever's disease is not usually seen before puberty.

Sex.—Either sex may be affected, depending chiefly on personal habit and idiosyncrasy.

Complexion.—Brunettes and red-headed persons are most commonly affected, but blondes are not immune.

Nationality.—Certain coloured African races are especially liable, as are Slavs, Eskimos, and the more southern Latins and Mediterranean peoples.

Occupation.—It is frequently seen in persons who follow laborious occupations such as navvies, gymnasts, dance-hostesses, gigolos and politicians.

Climate, contrary to expectation, is rather anomalous in its effects. Hot climates diminish liability by reason of (*a*) the lighter clothing worn, (*b*) frequent changes of clothing necessitated by diaphoresis and (*c*) frequent bathing. Cold climates are associated with the wearing of thick clothing and less frequent bathing. Over-heated and over-crowded rooms aggravate the condition.

Local Custom.—In localities where " sewing-up for the winter " is practised, it is met with in its most virulent form.

CAUSES

(*a*) *Predisposing.*—

i. The Quinquennial Revaluation of Property, by increasing assessments and rateable values, causes a corresponding increase in Water Rates.

ii. As a consequence of (i) there is a rise in the cost of commodities, including that of sodium stearate.

iii. As a further consequence of (i) there is a rise in laundry bills, thereby deterring or entirely inhibiting underwear-moulting.

(*b*) *Exciting Causes.*—

i. Passive hyperactivity of sudoriporous glands.

ii. Active diaphoresis.—

1. Physiological, from muscular work, etc.
2. Pharmacological, from administration of diaphoretics.

In addition to the above, contributory causes of a physiological nature may also be a factor, due to over-stimulation of the first pair of cranial nerves, with consequent exhaustion and diminished sensibility. Another type is that in which these

nerves are refractory to autogenously produced stimuli.

In this way we get " acquired " or " congenital " forms of hyponosmia, rendering the patient unaware of his condition.

SYMPTOMATOLOGY

Is comparatively simple, for it may be summaried in six words—The Patient stinks but seldom smells.

TREATMENT

The patient should be immersed in warm water at least once a day, with a liberal application of phenolised sodium stearate, suitably tinted pink and prepared in tablet form.

In the more severe cases the use of sandpaper, a wood-rasp, or the dried, closely-netted vascular bundles in the pericarp of the fruit of *Luffa Ægyptica* (*Nat. O. Cucurbitaceæ*) will be found of great assistance.

DIAGNOSIS

Although the odour is characteristic and has been likened to the taste of uncooked guavas, care must be taken to distinguish it from those which are exogenously produced. Corduroy trousers should be excluded, as should the distinctive effluvia associated with occupation—for example, in fried-fish operatives, sewage-farm attendants, mortuary keepers, stable hands and tanyard workers.

REMOTE EFFECTS

It has been suggested that the specific odour exercises an inhibitory effect on the production of certain hormones in persons of the opposite sex, while stimulating that of the unfortunate victims.

Commercial and social success become impossible of attainment, romance is destroyed and enforced celibacy may drive the patient to the verge of suicide.

PROGNOSIS.

The prognosis is favourable. Mortality in actual sufferers is nil, whatever it may be among persons in their immediate vicinity. Recovery is marked by enhanced S.A., business success and social triumph, quickly followed by romance, love and happy marriage.

That will be all this time, gentlemen.

Correspondence

Digitalis

To the Editor of the GAZETTE

SIR,—Dr. Beddard has drawn my attention to the discrepancy between the *British Pharmacopœia* statement that pharmacologically 1 grain of digitalis leaf is equivalent to 9 minims of the fresh tincture, and my statement that it is equivalent to 15 minims.

To avoid any misunderstanding may I emphasize that my statement applies to the ordinary clinical use of digitalis, and that over a series of years I have found 1 grain of the leaf had the same effect as something between 12 and 15 minims of the tincture.

It looks as if even in hospital practice the strength of digitalis tincture is on the average falling below its original fresh strength to this extent. This instability of the tincture should always be remembered, and if the result of its exhibition is not as good as one expected, one of the solid preparations should be tried before deciding that digitalis is not effective.

Yours, etc.,

MAURICE CAMPBELL.

25, Upper Wimpole Street,
W.1.

The New Chimney

To the Editor of the GAZETTE

SIR,—Your dramatic and stimulating reference in " Passim " to the continued nuisance of the all-too-famous chimney urges me to write to you in much stronger vein concerning this matter. The " layer of semi-digested vomitus " which you describe was but a few days later, by the change of wind, removed from its high position and very effectively distributed to the lower regions which it is our lot to inhabit. The lecture theatres were rendered an abomination by the quantities of dejectimenta already there and by the continual rain of particles on one's books, clothes and person.

I do not propose, Sir, that we should clamour for another and better chimney—the present one is ugly enough—but I do suggest that we should not confine ourselves to mere deprecations. Would it not be possible to set up a Committee of Inquiry to probe into the technicalities involved and who would not only satisfy our minds as to why the new chimney is evidently a failure, but who could also suggest a remedy for the ailment.

Last summer I visited one of the large power-stations feeding the Grid System, and it was

pointed out that the methods used were the cleanest and the most healthy both for the employees in the station and for people living in the neighbourhood, *and were the most economical.* Surely in Guy's one would expect to find everything planned on a far-sighted policy basis which aims at not just economy, but economy with efficiency. This and this only, I am sure, will satisfy people both inside and outside Guy's.

May I venture to suggest that the real cause of the nuisance lies not so much in the chimney itself (which is almost too efficient !), but in the boiler system and type of fuel used. Just as new wine should not be put into old bottles, so new chimneys should not be put to old boilers—though I do not suggest that the boilers will burst !

Yours, etc.,

BAXTER.

The Medical School,
Guy's Hospital, S.E.1.

"Starvatio Nocturnus"

To the Editor of the GAZETTE

SIR,—That *Starvatio nocturnus* is essentially a disease confined to people who hold subordinate but responsible positions is an immutable fact which partakes of the nature of a natural law. Nevertheless, my old House-Physician Professor James Hoppole was right to quote the case of the veterinary surgeon who, as a matter of fact, was a patient of my own.

I am sure that Professor Hoppole will be interested to know that the gentleman in question was married, the father of fifteen children, and supported a widowed father and mother. He was employed as a temporary assistant by Messrs. Spavin & Farcy, M.R.C.V.S., the well-known veterinary surgeons of Horsemonger Lane, at a weekly remuneration of twenty-five shillings and free manure for his garden.

I trust this information will convince Professor Hoppole of the meretriculous care observed in the preparation of these clinical lectures.

Yours, etc.,

HARLEY WIMPOLE,
His Mark, X
M.A., M.D., D.Sc., LL.D.

6a, The Bargain Basement,
B.B.C. Terrace,
Portland Place, W.1.

(P.S.—I am inclined to the opinion that a diagnosis of *Starvatio nocturnus et diurnus* would not have been unjustifiable.)

Cricket Fixtures

To the Editor of the GAZETTE

SIR,—In the late eighties, the support accorded to the cricket teams was negligible, even at the Cup-ties, and I have no doubt has been little, if any, better during the intervening years up to the present time.

The fact that very few men can afford to take a whole, or even a half, day off to watch a cricket match undoubtedly accounts, to a great extent, for the poor attendances at matches.

Surely, however, some of it can be attributed to the lack of information obtainable by old Guy's men from the *Gazette.* The list of cricket fixtures must have been known for some time, yet I have seen no publication of them in the *Gazette.*

The draw for the Cup-ties has probably been made; the result, with details as to when and where such matches will be played, would be appreciated by old Guy's men and at least give them an opportunity of supporting the Guy's team.

Last year I had the greatest difficulty in obtaining any information *re* Cup-ties, and only secured it through the courtesy of the captain and hon. secretary, to whom I wrote. I have been much struck by the sporting appeal for support at the Inter-Hospitals' Regatta made by the Rowing Club in this week's *Gazette.* If a similar one was made in connection with the Inter-Hospitals' Cup-ties, especially should Guy's again reach the Final, one would feel that at least an effort was being made to obtain support for the Guy's team.

Yours, etc.,

J. H. BUSTEED.

Balgores[c]
Uplands Gardens,
Glenleigh Park, Bexhill-on-Sea.

Students' and Residents' Accommodation

To the Editor of the GAZETTE

SIR,—Dr. James Rickett's letter in your last issue, though in parts it sacrifices accuracy for emphasis, draws attention to a subject—the need for radical improvement in the residential and recreational accommodation provided by the College—which has been under consideration by the School for some months.

In February I invited the President and Vice-President of the Residents, the Editor of the *Gazette,* and representatives of those living in the College who were not Resident House Officers to meet me to discuss frankly and informally the conditions in the College and to give me their criticism.

In April I presented a memorandum on the College to the School Council. This was discussed, and it was decided to vote the sum of £300 for alterations which were considered

immediately essential, such as improvement and extension of the bathroom accommodation. At the same time a committee was appointed to explore the possibilities of more radical changes. The School Council were unanimous in expressing the opinion that the improvement of the residential and recreational quarters should, at the present time, be its foremost consideration.

There are, of course, many difficulties to be overcome, most of them of a financial, and therefore serious, nature, before a satisfactory solution can be reached. In the meantime I am glad to have this opportunity of assuring your readers—and indeed you, Sir, yourself—that something is being done.

Yours, etc.,
P. M. F. BISHOP.

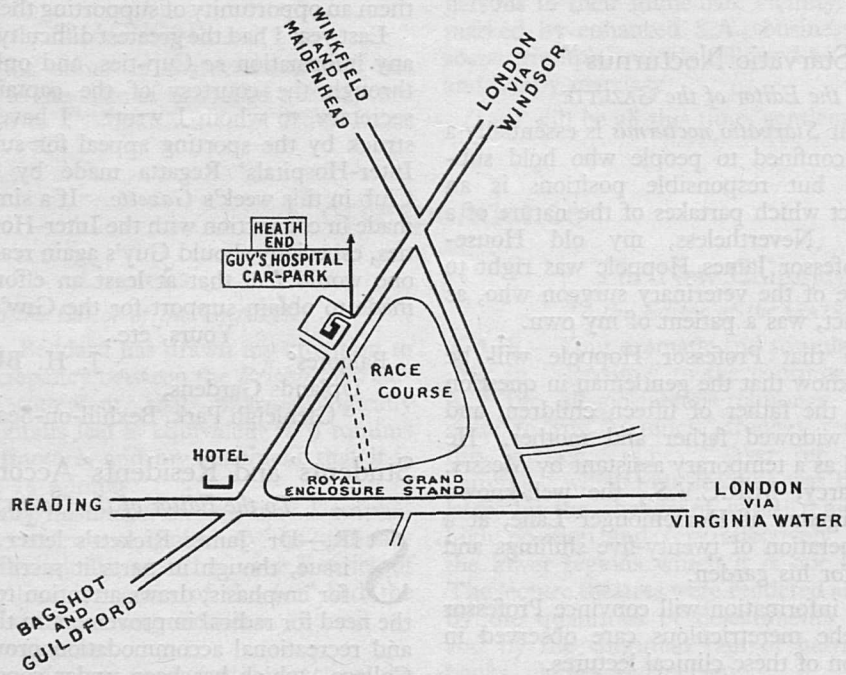
Warden's House,
Guy's Hospital, S.E.1.

Clubs' Union

To the Editor of the GAZETTE

SIR,—At the last meeting of the Clubs' Union Council it was unanimously resolved that the Balance Sheet of the Clubs' Union should be published every year, so that all Guy's men can see the results of the Council's endeavours to spend the money in the most satisfactory way. I should therefore be grateful if you could print in the *Gazette* the Balance Sheet and Revenue Accounts for the year 1936-37—the latter is compared with that of 1935-36.

Yours, etc.,
I. G. ROBIN,
Hon. Sec., Clubs' Union.



Plan showing route to Car Park

What Do You Think ?

No. 3

JOAN had the misfortune to " come a purler " off her bicycle one afternoon ; it was entirely her own fault, and, to make matters worse, she found, on getting up, that her forearm was most painful and had assumed a queer shape. There was no doubt it was broken. Her doctor made it clear she would have to have it set properly under anæsthetic, and that meant hospital, and a plaster jacket for it, and no work for some weeks

(*continued on page* 218)

Guy's Hospital Clubs' Union

BALANCE SHEET, 31ST AUGUST, 1937

	£ s. d.	£ s. d.
SUNDRY CREDITORS—		
Accounts owing at date		302 14 4
RESERVE FUND—		
As per last Account		600 0 0
BEDDARD PRIZE FUND—		
As at 1st September, 1936	13 16 5	
Receipts during year	4 9 10	
		18 6 3
LAIDLAW PRIZE FUND—		
As at 1st September, 1936	0 6 4	
Add Receipts during year	2 16 6	
	3 2 10	
Less Payments during year	2 16 6	
		0 6 4
SQUASH COURT MAINTENANCE ACCOUNT—		
Balance as at 1st September, 1936	36 3 5	
Add Meter Receipts (£ s. d.: 88 11 6)		
Garage Rents (20 0 0)		
	108 11 6	
	144 14 11	
Less Rent of Squash Court (50 0 0)		
Cost of Electricity (11 5 8)		
Cost of Cleaning (20 17 9)		
Cost of Maintenance (15 12 10)		
	97 16 3	
		46 18 8
		£968 5 7

	£ s. d.	£ s. d.
CASH—		
At Bank	5 9 3	
In Hand	2 12 9	
		8 2 0
INVESTMENTS FOR RESERVE FUND—		
£630 9s. 8d. New Zealand Government 3½ per cent. Stock, as per last Account		600 0 0
DEPOSIT FOR TELEPHONE CALLS		2 13 1
SUNDRY DEBTORS—		
Amounts due at date		129 1 8
STOCK OF RAILWAY TICKETS		44 3 4
REVENUE ACCOUNT—		
Excess of Expenditure over Income for the year ended 31st August, 1937	287 5 5	
Less Balance at 1st September, 1936	102 19 11	
		184 5 6
		£968 5 7

We have audited the attached Balance Sheet and Revenue Account of the Guy's Hospital Clubs' Union as at the 31st August, 1937, with the books and vouchers of the Clubs' Union, and find them to be correct and in accordance therewith.

It will be seen that the revenue again shows an excess of expenditure over income to date after deduction of the balance of the accumulated fund at the beginning of the year, by reason of the charging against revenue of certain capital expenditure. No doubt this will be rectified during the succeeding period.

In respect of the receipts from the gate and stand we have accepted the certified accounts of Mr. Charles E. Rose.

(*Signed*) KEMP, CHATTERIS, NICHOLS, SENDELL & CO.,
36, Walbrook, E.C.4.

18*th November*, 1937.

Guy's Hospital Clubs' Union

REVENUE ACCOUNT FOR YEAR 1936-37, AS COMPARED WITH 1935-36

To	1935-36. £ s. d.	1936-37. £ s. d.
GRANTS TO CONSTITUENT INSTITUTIONS—		
Association Football Club	38 13 11	48 14 3
Athletic Club	138 8 6	53 14 7
Boat Club	68 10 0	46 2 6
Cricket Club	70 1 10	70 15 9
Dental Society	33 17 6	31 12 3
Debating Society	1 10 0	—
Golfing Society	21 9 0	12 15 3
Hockey Club	65 0 10	73 17 2
Ice Hockey Club	—	30 10 0
Lawn Tennis Club	36 2 5	7 6 11
Pavy Gymnasium	52 17 7	137 0 9
Physical Society	12 15 10	2 7 1
Rifle Association	26 13 0	40 13 6
Rugby Football Club	160 8 10	203 9 10
Sailing Club	32 8 2	33 3 7
Students' Club	570 0 0	734 12 3
Squash Club	15 0 0	12 19 10
Swimming Club	20 1 6	19 0 9
Miniature Rifle Club (Rent of Range)	—	4 0 0
,, FARES AND TRAVELLING EXPENSES—		
Association Football Club	8 8 3	9 8 3
Association Football Club Tour	—	26 0 0
Cricket Club	11 0 11	7 18 0
Cricket Club Tour	20 0 0	—
Dental Society	2 11 9	7 10 9
Golfing Society	0 7 0	2 4 0
Hockey Club	7 0 7	16 12 6
Hockey Club Tour	—	24 0 0
Lawn Tennis Club	2 11 5	1 2 0
Rugby Football Club	188 6 10	252 18 10
Rugby Football Club Tour	—	75 0 0
Sailing Club	5 4 6	24 0 0
Swimming Club	3 6 7	0 11 0
,, GROUND EXPENSES—		
Wages of Groundsmen	400 17 0	419 1 7
Rent of Grounds, Honor Oak Park	465 0 0	465 0 0
,, ,, Malden	150 0 0	—
,, ,, University of London	22 11 6	151 1 0
Income Tax, Schedules A and B	85 19 0	93 11 6
General Rates and Water Rate	157 18 7	162 3 0
Gas and Electricity	23 5 2	23 9 8
Insurance	38 6 2	39 10 3
Telephones	7 3 7	3 7 2
General Repairs	49 2 9	67 14 1
Petrol and Oil for Mower	25 7 1	23 1 3
Carried forward	£3,038 7 7	£3,458 1 1

By	1935-36. £ s. d.	1936-37. £ s. d.
SUBSCRIPTIONS received during year	3,951 5 7	4,149 9 6
,, SUNDRY RECEIPTS—		
Grant from Medical School	200 0 0	200 0 0
Grant from Dental School	100 0 0	100 0 0
Rents from Tenant	100 0 0	100 0 0
Fees from Hire of Ground	3 3 0	3 3 0
Interest on Bank Deposit	10 18 0	1 10 10
Locker Rents	2 2 6	2 10 0
Grant from Guy's Hospital College Catering Company towards Students' Club Rent	100 0 0	100 0 0
Grant from Guy's Hospital College Catering Co. towards cost of redecoration and refurnishing of Reading and Smoking Rooms	470 0 0	—
Share of Receipts from Ice Hockey Machine in Pavilion	3 5 11	4 2 0
,, INTEREST ON INVESTMENTS—		
Reserve Fund	16 19 5	16 13 10
,, NET GATE AND STAND RECEIPTS	63 10 10	67 12 0
,, BALANCE being Excess of Expenditure over Income for the year	—	287 5 5
Carried forward	£5,021 5 3	£5,032 6 7

Brought forward	£3,038 7 7	£3,458 1 1
Repairs to Mower	28 9 9	29 8 6
Turf, Seed and Manures	118 8 0	109 14 1
Sand	33 4 0	40 10 9
Sundries for Ground	54 2 10	35 0 6
Coke	32 16 2	35 4 8
„ OTHER EXPENSES—		
Guy's Hospital Gazette	282 8 1	296 17 3
Gazette Free List	55 2 6	57 15 0
Office Salaries and Superannuation	96 13 4	99 2 9
Pensions	94 13 4	94 13 4
Audit Fee	7 7 0	7 7 0
Surveyor's Fees	1 10 0	8 15 0
Printing and Stationery	9 2 9	7 16 4
Insurance of Cups	4 6 9	3 15 0
Income Tax, Sechedule D	1 19 4	2 19 4
Sundries	20 3 1	24 10 3
„ UNIVERSITY OF LONDON ATHLETIC UNION	15 15 0	18 15 0
„ NEW TOWELS	6 0 0	—
„ COST OF OPENING CEREMONY FOR NEW PAVILION	123 10 4	—
„ NEW WIRE FENCING	15 7 3	10 12 10
„ COST OF CAR PARK	31 7 6	—
„ RE-SURFACING THREE HARD TENNIS COURTS	187 5 0	—
„ SHARE OF COST OF DRAINING NEW GROUND	80 0 0	—
„ GRANT TO STUDENTS' CLUB (per Guy's College Catering Co.) towards redecorating and refurnishing of Reading and Smoking Rooms	470 0 0	—
„ STORE ROOM UNDER STAND	—	388 5 8
„ POSTS AND CHAINS IN FRONT OF STAND	—	33 0 0
„ ENCLOSING ENDS OF STAND	—	69 5 3
„ NEW FENCING	—	102 7 6
„ NEW BEARERS AND BATTENS FOR TUB ROOM	—	22 10 0
„ NEW SEATS FOR GROUND	—	9 10 4
„ ALTERATIONS TO LIGHTING IN DINING ROOM	—	15 5 4
„ EQUIPMENT FOR TABLE TENNIS	—	19 0 10
„ RIFLES FOR MINIATURE RIFLE CLUB	—	32 3 0
„ BALANCE, being Excess of Income over Expenditure for the year	213 5 8	—
	£5,021 5 3	£5,032 6 7

Brought forward	£5,021 5 3	£5,032 6 7
	£5,021 5 3	£5,032 6 7

to come. The trouble was that Joan's parents were both invalids, and the only money that came into the house was her weekly pay.

Later in the day Joan lay looking at the ceiling of the anæsthetic room; it was the last thing she ever saw, for she was dead less than ten minutes after the anæsthetist said, "Just shut your eyes and breathe naturally." It was one of those anæsthetics which looked like going so smoothly, and Mr. X, who was ordinarily a house surgeon, but who gave anæsthetics in "these simple cases," settled down to an enjoyable duty. He changed over to ether and moved into the operating theatre at the end of about six minutes; sitting down on the stool at the head of the table he drew towards him the ready-laid anæsthetic trolley kindly prepared by the Theatre "Junior" and "checked" by the Theatre Staff Nurse. Everything was ready, to the last detail. Even the long rubber tube which was to carry the anæsthetic to his patient lay invitingly dangling over the edge of the top rail, and Mr. X hooked it in the airway which already lay in Joan's mouth. He turned back to the trolley.

Now on this trolley there was one of those clever devices for delivering ether vapour mechanically. There was a bottle of ether with two tubes passing down through the stopper; you just fixed an oxygen cylinder on one end and connected the other with a tube leading the anæsthetic mixture to the patient. Mr. X had never had anything but praise for it, and, as usual, everything was ready. He smiled a "Thank you" to the Junior (for she was rather a better looker than the Staff who had actually "checked" the trolley) and turned on the cylinder, keeping an eye on the ether so as to adjust the flow of bubbles to a nicety. Nothing happened, so he turned it on a little further. To his horror he suddenly realised that the ether was rapidly disappearing from the bottle. He spun round and snatched the tube from Joan's mouth, but it was too late. She was slate-grey in colour and ether dribbled away from her nose and mouth over her cheek. She was dead; the tubes had been fixed the wrong way round on the ether bottle. Too late Mr. X cursed his folly in accepting the Staff Nurse's check-up without question—after all everyone made mistakes.

But this was a fatal mistake, and the Coroner felt bound to say this was negligence. The solicitors who were later consulted by Joan's father said it clearly amounted to professional negligence, perhaps not criminal, but certainly civil, and that since Joan was the bread-winner to the family, compensation was due, if only for the loss of income. The Court fixed it at £2,000.

Who should take the responsibility, and who paid—the Hospital, Mr. X, or the Nurses?

What do *you* think?

SOLUTIONS TO No. 2

WINNING SOLUTION TO NO. II

By J. R. Forbes, Esq., of Guy's Hospital

THERE can be no reasonable doubt that Sam is responsible in law for causing his father's death. Death took place within the statutory period (a year and a day) from the time of the blow. Sam would be absolved from responsibility only if it could be shown that the intervention of the third party (the house surgeon) was wilfully or unreasonably negligent. On medical grounds, however, this argument is obviously untenable.

Sam, then, has committed homicide. But not every homicide is criminal, otherwise every public executioner would be guilty of murder. To prove criminal homicide it must be shown that Sam, in "unleashing a corker," was adopting unreasonable means to protect himself from his father's assault. We are told, however, that "it was not enough merely to defend," which implies that Sam was forced to take a more vigorous course than that of mere passive defence in order to safeguard himself. Another fact which speaks in his favour is that when his father "drew away, saying he had had enough," Sam did not attempt to continue the struggle. This is evidence that his blows were not actuated by malice, but simply by the necessity for self-defence.

There is therefore no evidence that Sam used more force than was necessary to protect himself from injury from his father's assault. Hence his act is one of justifiable homicide, and he is guilty neither of murder nor of manslaughter.

OUR SOLUTION

THE position in which Sam found himself was not so serious as might appear at first sight. It is true that a man is responsible for his actions and might be charged under those circumstances with murder or manslaughter, but it would have to be shown that there was some intention on Sam's part actually to assault his father; this alone would constitute the unlawful nature of any wounds which might have been inflicted by him. A blow which was struck in defence would constitute defence, and Sam had

a witness seated in the car which awaited him who would testify as to which was the aggressor and whether there was a real fight or merely an assault by father.

It is clear, however, that a doctor who undertakes the management of a case of criminal wounding shoulders a considerable responsibility, for it may later be alleged that the victim died not because his wounds were of a fatal kind so much as because the procedure adopted in the course of treatment proved fatal in that it was ill-advised and negligent. The surgeon in this case might have to show that the tracheotomy was proper under the circumstances and constituted a perfectly ordinary form of treatment acceptable according to existing practice. It would seem wise to confine oneself to well-recognised forms of treatment lest anything should go wrong and a fatality occur.

In actual fact, in this case the police made no charge of any kind, being satisfied from their inquiries that Sam had acted defensively.

Sport

Cricket

L. G. MOREY'S XI v. ST. MARY'S HOSPITAL

THIS game was played on Sunday, May 8th, at Teddington as a friendly fixture. L. G. Morey took down a side mainly composed of those Guy's people who do not play regular Sunday cricket. The incomers were D. W. Higson, of St. Thomas's, and J. C. G. McVail, of the Law Society. R. A. B. Kinloch, the successful bowler of last year's tour, was apparently unavoidably detained, and E. P. Griffiths substituted for him.

McClintock and Hughes opened slowly, and three wickets fell down for only 56 runs after three-quarters of an hour. But Morey stepped straight into his Gravesend form, and he and Birks this time added 80. The later batsmen provided little resistance to the bowling of Bok, who carried all before him, until struck well over his head by Babrow. The innings closed at 229, Morey being ninth out for 107.

St. Mary's had only 2 hours and 20 minutes to get the runs, and at first, owing to the steadiness of Knight and McVail, were badly down on Father Time. But Muller went on his way, and Keigwin hit luckily and hard until at 129 for 2 and 5.55 Morrison came in. Since stumps were to be drawn at 6.30 he struck his second ball for a fine long-off six, and proceeded in the same vein until the last over came with 15 runs still needed; 12 of these were obtained, the last ball being thrown up for a six. It was unlucky that this fine effort of Morrison's was unavailing. He carried his bat for 63 in 35 minutes against comparatively accurate bowling.

Scores—St. Mary's, 227 for 6 wickets (Knight, 3 for 65; McVail, 3 for 92; McClintock, 0 for 38; Morey, 0 for 27.

L. G. Morey's XI

A. C. C. Hughes, c. Graham-Jones, b. Mendlesohn	14
C. L. T. McClintock, b. Mendlesohn	20
D. W. Higson, st. Graham-Jones, b. Taylor	3
L. G. Morey, c. Morrison, b. Bok	107
P. H. Birks, b. Morrison	30
J. C. G. McVail, l.b.w., b. Bok	13
T. Wooldridge, b. Bok	0
D. N. Fuller, c. Keigwin, b. Taylor	4
L. Babrow, st. Graham-Jones, b. Bok	14
E. P. Griffiths, not out	1
H. M. Knight, c. Lees, b. Bok	1
Extras	19
Total	229

Morrison, 1 for 45; Howell, 0 for 48; Taylor, 2 for 48; Mendlesohn, 2 for 3 0; Mackintosh, 0 for 6; Bok, 5 for 28.

GUY'S v. OLD MILLHILLIANS

THE Old Millhillians paid their first visit as a cricket side to Honor Oak Park on May 14th, and duly won the toss. The Hospital were practically at full strength; three freshmen—Knight, McKechnie and Donner—were to have played, but the latter was taken ill the day before. Our opponents started steadily despite some accurate bowling by Knight and Coffey, but Tucker, though slow, remained steadily accumulating runs. When O'Gorman came on at 65 for 1, he immediately bowled Blackwell with a fine "wrong-'un," and in the next over had Reid caught at cover. Goldman and Sobey then put on 60 runs, and the Hospital paid dearly for the chances they did not accept, until Knight came on again and bowled Goldman. Sobey and Spong did not produce a partnership comparable with their achievements on the rugger field, and when

O'Gorman had Down stumped at 202 and 5 o'clock, the innings was declared for nine wickets, leaving Guy's two hours and five minutes to score 203 after tea.

Hughes and McKechnic set about their task nobly, despite the speed of Bower, which, fortunately, was not, as yet, tempered with extreme accuracy. The first hundred was up for the loss of McKechnic and Chase, who was well caught at long-on, while forcing the pace, in three minutes under the hour, and Guy's chances were rosy. Hughes was bowled, still going after the runs, after scoring 54 at just over a run a minute, and after making 20, Morey was stumped by yards, thus losing his chance of making three hundreds in succession, which had been denied him by his declaration at Gravesend.

Guy's were still well in the hunt until Bower came back to bowl O'Gorman and Foster with successive balls.

The tail went on trying to keep in front of the clock, despite the apparent hopelessness of their task, but after Thomas was well caught by Reid running in from the boundary, it was nearly over, and then Guy's were all out for 145, to lose by 57 runs after being in a winning position and with time to spare.

Scores—Old Millhillians, 202 for 9 declared (Knight, 3 for 39; Coffey, 0 for 22; McClintock, 0 for 40; O'Gorman, 6 for 45; Morey, 0 for 40).

Guy's	
Hughes, b. Tucker	54
McKecknie, b. Down	11
Chase, c. Saunders, b. Tucker	15
Morey, st. Spong, b. Tucker	20
Birks, b. Carter	15
O'Gorman, b. Down	5
Foster, b. Down	0
Thomas, c. Reid, b. Carter	9
McClintock, b. Tucker	2
Coffey, c. and b. Tucker	0
Knight, not out	0
Extras	14
Total	145

Down, 3 for 31; Davidson, 0 for 14; Carter, 2 for 41; Tucker, 5 for 46.

GUY'S v. ST. ANNE'S

ON Wednesday, May 11th, at Virginia Water, the Hospital's opening batsmen—temporarily promoted though they may have been—were quite unable to cope with the in-swingers of the left-handed Pykett, who bowled the first two batsmen off their pads. At 16 for 3 Morey's steadiness was again evident, but Foster's aggressive effectiveness was tempered with indiscretion; he was very soon bowled for 16.

Birks and Thomas then provided fine assistance to their captain, who increased his rate of scoring as Pykett's swing diminished.

Lunch was taken at 175 for 5, but the interval was too much for Thomas, and many beside. The side collapsed to the bowling of Pykett, who took 8 for 25, to such an extent that only Ruchby's heroic defence enabled Morey to complete his second successive hundred before he was left at the wicket undefeated and unsupported. This made 310 runs for once out in his last three innings.

St. Anne's started steadily, but could make little impression on some accurate bowling by Donner and Knight; the latter went on to capture some good wickets, exploiting an effective breakback against the out-swingers. Five wickets fell before a change was made, and then, with the help of two run-outs, the latter a fine combination of bending and baulking by the bowler, Ruchby and McClintock completed the innings, and the Hospital had won by 120 runs.

A second innings was played, in which St. Anne's made 99 for 7. Guy's were unable to dismiss them on time despite the bellicose bowling of Birks.

Scores—St. Anne's, 92 (Knight, 4 for 16; Donner, 1 for 30; Rushby, 1 for 22; McClintock, 2 for 9; Morey, 0 for 1.

Guy's	
I. E. McKechnie, b. Pykett	0
C. L. T. McClintock, b. Pykett	1
A. M. Platt, b. Pykett	8
L. G. Morey, not out	114
P. H. Birks, c. Bishop, b. Peate	22
H. D. Foster, b. Peate	16
H. A. Thomas, b. Pykett	32
D. M. Fuller, c. Bishop, b. Pykett	0
B. G. E. Donner, b. Pykett	0
H. M. Knight, b. Pykett	1
F. W. Rushby, b. Pykett	6
Extras	15
Total	215

Pykett, 8 for 75; Devine, 0 for 22; Peate, 2 for 83; Bishop, 0 for 20.

GUY'S v. SOUTH HAMPSTEAD

SOUTH Hampstead won the toss at Brondesbury Park on Wednesday, May 18th, and decided to bat on what ought to have been an easy wicket. This illusion was shattered by the opening overs from Knight and Morey, both

of whom were making the ball lift appreciably. Our opponents completely failed to shape on such a wicket, and five wickets were down for 26 runs; but Wallach, the captain, and Higgins defended stolidly, and they began to score, until the former was very well caught at leg-slip by McKechnie. Rushby took an over to settle down when he replaced Morey, but he then took the last Hampstead wicket with another that "popped" to slip off the edge of the bat. Since they were one short, their innings closed at 83 for nine.

When Guy's went in, Hughes and McKechnie were both taken behind the wicket and there was a chance of a collapse, happily averted by some proper treatment of short bowling by Chase, who helped himself avidly to four successive fours in one over. His efforts at emulation of such a feat were too much for Morey, who skied one to point, and in the same over Birks was taken in the slips. The game might well have swung over, but Chase, well partnered by Leeming, went busily on his way, scoring 52 out of the 84 needed to win.

Chase and Leeming went on to race one another to their respective century and half-century, but, while six short, Chase was very well caught in the slips.

Guy's declared at 192 for five, to give them another short knock on what our batsmen had made to look an easy-paced wicket. All the same, three wickets fell for 13, with plenty of fire still there, though Chase was needed to break the next stand at 43 for four. His one wicket was rather less expensive than the last one he obtained for the Club!

Scores—South Hampstead, 83 (Knight, 1 for 11; Morey, 4 for 30; McClintock, 2 for 12; Rushby, 2 for 16.

Guy's

O. I. E. McKechnie, c. Western, b. Rayner	0
A. C. C. Hughes, c. Washburn, b. Rayner	1
G. H. G. Chase, c. C. Higgins, b. Watkins	94
L. G. Morey, c. Wallach, b. Rayner	17
P. H. Birks, c. Washburn, b. Rayner	0
J. A. L. Leeming, not out	66
H. D. Foster, not out	1
Extras	13
Total for 5 wickets	192

H. A. Thomas, C. L. T. McClintock, J. H. Knight and F. W. Rushby did not bat.

GUY'S v. NORBURY

GUY'S were without C. L. T. McClintock in their match against Norbury on Saturday, May 21st, but fielded what was, on paper, a strong side.

Morey won the toss and put our opponents in, a procedure calling for the severst criticism in a captain other than our own.

Knight and Donner opened the bowling, and the former, making the ball turn quickly from the off, captured two quick wickets. A stand for the third wicket took the score to sixty in 45 minutes, when Knight took his third wicket. O'Gorman came on for Knight, and the latter was soon put back at the stand end. This combination proved effective, and wickets fell regularly. Thomas showed something of his true form behind the wicket, stumping three of our opponents off O'Gorman, who was bowling very cleverly.

Towards the close of the Norbury innings, several catches were badly misjudged in the outfield, and the Norbury score reached 159, which was rather more than it should have been.

Knight had bowled really well, taking 7 for 42. He has greatly strengthened our bowling, and provides that very necessary touch of fire and hostility which was lacking last season.

A score of 159 seemed no great task, but our batting, which can be so good, failed badly. However, the Norbury bowling was commendably steady, and runs were always difficult to get. Losing Leeming in the first over, we were always struggling. Chase and Hughes made good progress, but with the score at 30 Chase was run out, and that was stark tragedy, for no one can score so quickly and so attractively as Chase when he is well set.

Morey was well caught at once, and Hughes was bowled an over later. O'Gorman played yards outside a straight ball and was bowled, and that was 40 for 5.

This brought Foster and Birks together, who made a good effort to pull the game round, but Birks was bowled at 87 and Foster, who had batted excellently, grew too exuberant and was out playing his notorious hook.

McKecknie played a shot quite unworthy of himself, and Donner was beaten by a good one; 95 for 9.

This brought Thomas and the majestic Knight together in a spirited last-wicket stand. Thomas hit valiantly, and Knight was as stubborn as Ponsford.

With the score at 132, Thomas was bowled after playing the best knock of the day, but, as always, he showed just that lack of discretion which prevents him becoming a really good bat, for no one has more shots or quicker moving feet than Thomas.

Scores—Norbury, 159 (Knight, 7 for 42; Donner, 0 for 23; Morey, 0 for 32; O'Gorman, 3 for 49.

Guy's

A. C. C. Hughes, b. Rafter	13
J. A. L. Leeming, l.b.w., b. Summers	0
G. H. G. Chase, run out	23
L. G. Morey, c. Rafter, b. Morrish	8
P. H. Birks, b. Summers	15
G. O'Gorman, b. Morrish	6
H. D. Foster, b. Adamthwaite	26
I. E. McKechnie, b. Adamthwaite	1
H. A. Thomas, b. Morrish	30
B. G. E. Donner, b. Adamthwaite	0
J. H. Knight, not out	3
Extras	7
Total	132

Summers, 2 for 21; Adamthwaite, 3 for 33; Rafter, 1 for 35; Morrish, 3 for 31.

Golf

THE Medicals v. Dentals Annual Supper Match was played at the Beckenham Golf Club on Wednesday, May 11th. It was a very fine evening for golf and the course was playing extremely well. The match resulted in a win for the Dentals, who thus repeated their victory of last year over the same course, but only after a very close fight, the final score being $3\frac{1}{2}$ points to $2\frac{1}{2}$.

Dentals		*Medicals*	
J. C. Ritchie (4/2)	1	B. C. M. Reed	0
T. N. Praat (4/3)	1	P. Wilson	0
T. H. Eustace	$\frac{1}{2}$	K. S. M'Clean	$\frac{1}{2}$
P. Jeffrey	0	S. A. March (2/1)	1
S. G. M'Callin (3/2)	1	F. R. Buckler	0
W. G. Cross	0	W. James (3/2)	1
Total	$3\frac{1}{2}$	Total	$2\frac{1}{2}$

Hospital Information, etc.

Pass List

ROYAL COLLEGE OF SURGEONS.

L.D.S.

FIRST PROFESSIONAL EXAMINATION.

April-May, 1938.

Dental Mechanics and Dental Metallurgy.

K. S. Bacon
A. H. Bell
M. K. Burt
A. P. Davies
W. O. R. Evans
J. D. Everall
R. L. Hurst
J. F. Mordaunt
G. E. A. Ralston
G. W. Sawyer
P. H. Staple
M. Wilks

Anatomy and Physiology.

D. Baumann
O. R. Berry
D. A. Clough
R. F. Cutmore
J. R. Dyer
K. R. Glanville
A. W. Gunn
J. M. Hanson
R. N. Lewis
D. Mackenzie
H. H. S. Payne
J. H. Ratcliffe
P. I. Rhodes
M. Suskin
S. P. Vorster
I. B. Walters
D. A. White
J. B. Woodward

Special Anatomy and Physiology.

K. S. Bacon
J. F. R. Bentley
M. K. Burt
D. M. Cushing
R. R. Darracott
A. S. Davie
D. K. L. Davies
A. H. Drewitt
A. C. G. Freer
D. L. Gabb
R. C. Green
F. E. B. Heesom
R. L. Hurst
J. A. Irwin
E. O. W. Jones
P. D. Jones
I. A. M. Mitchell
J. A. Orchover
R. H. F. Pearce
G. E. A. Ralston
F. F. Robson
S. N. Simpson
E. S. Smith

Papers by Guy's Men

Sir Gowland Hopkins. Biological thought and chemical thought. *Lancet*, 1938, i, 1147, 1121.

R. W. B. Ellis. (1) Green teeth following icterus gravis; (2) Allergic purpura; (3) Gargoylism; (4) Massive collapse of lung following tonsillectomy—recovery; (5) Lung abscess following tonsillectomy—recovery. *Proc. Roy. Soc. Med.*, 1938, xxxi, 767-773 (Sect. Study Dis. Childr.).

O. Gayer Morgan. Bilateral pemphigus of the conjunctiva. *Ibid.*, 868 (Sect. Ophthalmol.).

W. R. Reynell. The treatment of morbid anxiety. *West London Med. J.*, 1938, xliii, 49.

John A. Ryle. Medicine and eugenics. *Eugenics Rev.*, 1938, xxx, 9.

R. T. Grant and R. S. Bruce Pearson. The blood circulation in the human limb; observations on the differences between the proximal and distal parts and remarks on the regulation of body temperature. *Clin. Sc.*, 1936, iii, 119.

R. T. Grant. Observations on the blood circulation in voluntary muscle in man. *Ibid.*, 175.

B. McArdle and Another. Further observations on familial periodic paralysis. *Ibid.*, 229.

Martin A. Rushton. A case of unilateral micrognathia, aural atresia, and macrostoma. *Brit. Dent. J.*, 1938, lxiv, 549.

A. H. Douthwaite. Some recent advances in medical diagnosis and treatment. *Brit. Med. J.*, 1938, i, 1143.

A. Ralph Thompson. The clinical anatomy of cases of epispadias and extroversion of the bladder. *Brit. J. Child. Dis.*, 1938, xxxv, 36-43.

Births

CORFE.—On May 16th, 1938, at a nursing home, Muswell Hill, to Joyce (née Figgins), wife of Felix Corfe, of 196, Muswell Hill Road, London, N.10—a second son.

ROBSON—On May 21st, 1938, at 20, St. John's Park, Blackheath, to Honor, wife of L. K. Robson, M.B., B.S.—a son.

EDS. { H.B.O.C. / C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

NEXT Thursday, June 23rd, the new Pathology Block is to be officially opened by the Earl of Athlone, K.G., P.C., G.C.B., G,C.M.G., G.C.V.O., F.R.S. There will also be a Garden Party, starting at 3 p.m., in the grounds of the Hospital, and all Guy's men will be welcomed. Tickets may be obtained from the Medical School Office if application is made before June 20th.

Guy's is fortunate in the possession of so fine a research unit, and for the benefit of those of our readers who have not had the opportunity of inspecting the new block we intend in our next issue to publish an account of its functions. There will also be articles explaining the benefits which should accrue to the Medical School on the one hand and the Hospital on the other from its existence.

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WE are asked to announce that the Fison Memorial lecture, which was to have been delivered by Sir Thomas H. Holland, K.C.S.I., K.C.I.E., F.R.S., Principal and Vice-Chancellor of the University of Edinburgh, on Friday next, June 24th, has been indefinitely postponed.

▭

THE Appeal Secretary sends us the following communication which we know will be of interest to our readers. We are sorry that we cannot give any precise figures at the time, but we hope soon to be able to do so.

"The second stage of the Appeal was launched on the 5th May this year, having been preceded by a Press Luncheon held in the Court Room, at which Lord Nuffield took the Chair. The Luncheon was attended by representatives of the National and Provincial Press.

It is pleasing to be able to report that the number of responses to the Appeal has been very satisfactory, although we are still lacking those large donations which help so appreciably in realising the balance of the original Appeal—namely £316,000. It is most interesting to note that a large percentage of the money realised in connection with the second stage of the Appeal has come from those who had not yet responded to the initial Appeal, or two subsequent 'reminders.' They were sent a letter signed by Lord Nuffield, on this occasion, however, asking for the sum of Ten Shillings only. The result was a most gratifying response—80 per cent. of which were for donations of considerably more than ten shillings. Up to the present moment over 2,200 receipts have been issued, and, as far as can be judged, the average of response is a high one. Nevertheless, we are still a long way off our objective, and it is only with the help of those associated with the Hospital, who know its needs, and who are willing to interest others, that we can hope to raise the huge sum of £316,000.

The Concert which was held in the Physiological Theatre on Wednesday, 25th May last, proved to be a great success. Those who attended heard a programme from some of the finest artistes in the country, and their appreciation was difficult to satisfy, every artiste without exception giving a number of encores.

The Theatre was completely transformed by the floral decorations, and the whole atmosphere was a singularly happy one. It is most gratifying to report that we are assured of a clear profit of over £200 after expenses (only some £8 to £9) have been paid."

▭

NO one to-day can say that the Medical Student's life is a dull one. In fact, we doubt very much if it ever were. Bob Sawyer and his friend seemed to find life tolerable in Lant Street in the forties, and in 1938 we have our little excitements too, for earthquakes, bankruptcy and the alleged attempted abduction of our Treasurer all help to keep that pulse of life throbbing in us, and we

were interested to see the other day while wandering through the Medical School, that the Hospital now even has a new political society to enliven the students' lives—the Guy's Hospital Socialist Society. Being poised with a magisterial calm on our self-erected pedestal, we will not comment favourably or adversely on the formation of such a body; it would not be becoming, but we would insist most forcibly that this lack of political equilibrium should be redressed by the immediate provision of a branch of the Primrose League for the Hospital.

To maintain a just balance of power may be difficult, and it might even be necessary to throw in a Liberal Group (not Nationalist, of course) in order to keep stability. And if the pinks and the blues are to be represented, there is no reason to suppose that the reds and the blacks will be slow at demanding representation. Finally we may have to call for the formation of a Party of the Centre, whose colour would, of course, be pure white. The other attraction which we saw advertised in a scarlet hue which contrasted strangely with the sober black tones adopted by the Socialists and which by its colour strongly suggested a *Petitio Principii*, was the notice of a talk under the auspices of the Guy's Hospital Christian Union and entitled, " Christianity—Drug or Dynamic? "

WHAT *do* you think? We have had this week to allot ourselves the guinea prize for the best solution to our fortnightly problem. It is really most embarrassing. Unfortunately our own is the only correct one, and so we pocket the guinea—or rather we are sending it to the College authorities to add to whatever number of guineas they have put aside to effect improvements in that ancient structure—a worthy cause. Nevertheless, we regret this should be so. Are there no impecunious students with a half-hour to spare and the desire to acquaint themselves better with that most tricky of subjects—forensic medicine? We feel that this series of problems is worth continuing.

What do *you* think?

EACH year Guy's has an " American " Tennis Tournament. Who originally started the idea we do not know, but we believe that for many years Dr. and Mrs. Ryffel have been the prime instigators, with Dr. Knott as a close accessory before the fact. This year's tournament was doubly successful in that it attracted a record number of competitors and an almost fine afternoon. True it was preceded by an earthquake—of which more anon—but this entirely failed to damp the ardour of the players, who divided their energies between the game and rushing to hear the latest Test Match scores. Due to the large number of players the final rounds were played at a very late hour, which was a pity, because they were productive of some very fine tennis. The winning couple were R. S. Stevens and Miss Power, and the prizes donated by Lady Bonsor and others were distributed by Miss Ursula Bloom, the novelist.

The arrangements went without a hitch, due to the spade-work wrought by the organisers assisted by Messrs. T. E. Howell and N. A. Power and, what was at least as important, there was an excellent tea run by Mrs. Bulleid, Mrs. Shackle and Mrs. Blakely, and an able band of other ladies. A particular feature this year were the side-shows, including several gambling hells. With its increasing popularity the tournament may, we fear, next year have to vacate Honor Oak for more spacious quarters. What about Wimbledon, Dr. Ryffel?

WE have been shocked again. No, not this time, dear readers, by your curious habit of refusing to believe a word we say in earnest and of twisting our most jesting suggestions into fantastic and libellous nonsense, but merely by an earthquake. A common enough occurrence, no doubt, for our readers in China, and many Dominion students perhaps felt temporarily less homesick, but for cockneys like ourselves and, for that matter, for the whole Borough, it was all rather exciting.

We were asleep at the time, sharing with the pigeons the shelter of some of the larger plumbing of a convenient balcony, and so missed all the fun, but eye-witnesses tell us of strange happenings in the neighbourhood on that otherwise peaceful Saturday morning.

In a not far distant public house, a pint mug was seen to leap from the counter and empty its contents down the throat of its owner without a drop being spilt, while from the same premises a dart flew out of the window and overturned a passing milk waggon, but Guy's itself seems to have suffered little.

It is true that the windows rattled in the wards, some doors flew open, and our Founder executed some quaint and intricate steps upon his pedestal (the rumour that a large bubble with the words " Surgical Block " written upon it in large letters flew out of his mouth and burst with a cloud of blue smoke is quite definitely apocryphal), but that was all that happened here, and our frantic rush to see whether the College had collapsed was quite unnecessary.

Still, like rain following the recent drought, that earthquake was badly needed, and we are overjoyed to see that, as an aftermath, work has now been started on the construction of the new Children's Ward.

"Stinking Smoake"—A Digression

A Clinical Lecture delivered at Guy's Hospital by E. R. Boland, Esq.

GENTLEMEN,—James the Ist of England and VIth of Scotland had a poor opinion of tobacco: "Herein is not only a great vanity but a great contempt of God's good gifts, that the sweetness of Man's breath, being a good gift of God, shall be wilfully corrupted by this stinking smoake." Since amongst the other literary achievements of this royal author is an exhaustive treatise on the habits of witches and demons, and the methods of detecting them and what to do with them when detected, it is reasonable to wonder whether his attack on tobacco is an equally misguided search for an imaginary demon, or whether he was right when he fulminated against the "stinking smoake" and Spenser wrong when he called it divine.

Smoking has become such an accepted part of our daily life that it is difficult to realise how recently it has gained its present position. None of us here are old enough to remember the days when gentlemen, with a capital G, could only smoke in the stables or in a room specially provided for the purpose and still called the Smoking Room. You have heard the story, probably apocryphal, of how King Edward VII, when Prince of Wales, was forced to smoke his cigar up his bedroom chimney when visiting his august mother, although it has recently been whispered that on occasion even she used to smoke a surreptitious cigarette—perhaps up an adjoining chimney. Not only were special rooms provided, but special clothes were worn for this nefarious practice. Special caps and jackets were sported to preserve the clothes from the smell of tobacco, which was thought to be specially offensive to the feminine nose.

For centuries smoking has been regarded as not quite respectable, and kept, so far as possible, outside polite life, but the War and the social changes which followed it broke down barriers already crumbling, and tobacco overwhelmed the world like a dam-breaking flood, swept away prohibitions and prejudices, and broke into places hitherto barred against it. Even here in recent memory it has trickled into the wards and the Nurses' Home. Perhaps the most significant sign of the ultimate triumph of tobacco was the action of the railways in abolishing smoking carriages. It was the turn of the non-smokers to be segregated in the room of the smokers. The Church, the Law Courts and some of the Halls of Learning are now the only places sacred from the fumes of tobacco. The enfranchisement of smokers, or alternatively the subjection of non-smokers, has not been achieved without a struggle. Fines, imprisonment, floggings, mutilation and even death has been the lot of smokers in bygone ages. Persian and Abyssinian despots cut off the lips and nose of smokers, and Russian czars stuck the stems of smokers' pipes through their noses before putting them to death. In every country, at some time, the habit has been pursued with the utmost rigour of the Law, but mankind has gone on smoking tobacco. The victory of tobacco at the moment seems complete, but it is not for that reason necessarily permanent. There may one day be a great revulsion against tobacco, and it may be that the organisation of world youth for physical fitness will produce a complete change of heart. Boy Scouts do not smoke, I believe, and the same prohibition already exists in many youth movements all over the world. Hitler is alleged to have said that the German woman does not smoke. Who knows what he will say to-morrow? Anti-tobacco leagues seem to grow in number and strength, and a new morality campaign is threatened. Are all these signs the last despairing shots of a lost cause, or are they the first rumbling of a coming storm?

The generation which was of age in the years of the War is an unfortunate one. It was brought up in a time when by age-old traditions its elders still claimed the right to point out its inferiority in every respect to its forebears, and without having had time or the chance to point a moral in either direction it finds itself attacked by the new generation as effete, degenerate and compact of outworn tradition. It is already beginning to feel rather old-fashioned, and it may be that in its old age, it will spend its declining years in a concentration camp for those who persist in this anti-social vice.

A short time ago I received a French pamphlet on the subject of smoking which had not a kind word of any kind for those of us who smoke, who were alluded to as Tabagistes suffering from Tobacomanie, moral perverts, victims of one of the great scourges of the world. The charges made were so sweeping that I was startled into considering tobacco-smoking objectively. I had apparently taken it for granted without introspection, a brutish lethargy (according to the pamphlet) induced by the soporific fumes of mind-destroying nicotine.

Those who have attacked tobacco have never erred on the side of understatement. James I,

whom I quoted earlier, called it " a branch of the sin of drunkeness which is the root of all sins. A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black stinking fume thereof nearest resembling the horrible Stygian smoke of that pit that is bottomless." Thomas Burton, who wrote the " Anatomy of Melancholy," said, " 'Tis a plague of mischief, a violent purger of goods, lands, health, hellish, devilish and damned tobacco, the ruin and overthrow of body and soul," and Swinburne, with an intemperance not uncommon in the campaigns of temperance reformers, said, " James I was a knave, a tyrant, a fool, a liar, a coward. But I love him, I worship him because he slit the throat of the blackguard Raleigh who invented this fifthy smoking." I could go on quoting similar diatribes, but I have given enough to show the spirit of the attackers.

You will find no difficulty in finding plenty of poems and essays singing the praises of tobacco. On the other hand, you will seek in vain for any books written in defence of it, although books written to condemn it are legion. This disparity is produced as evidence by one of the spokesmen for the anti-tobacconists. He said that this showed that there was no case to be made out for tobacco, and that this proved its badness ; but the smoker is, perhaps to his detriment, a philosophical person ; he seeks no converts, and in the face of all fulminations continues to smoke his pipe in unruffled peace. You will notice, therefore, that all the books which are written about tobacco are, in fact, written against tobacco, and you will look in vain for any dispassionate study unless you can find impartiality in M. Poucel, who starts his book by saying that he will consider the question without bias and without any preconceived prejudice, and then refers to it as " This scourge . . ." on about the third page ! All writers appear to be singularly unanimous not to say imitative in their charges against tobacco. I will endeavour to summarise them, as it would take much too long to recapitulate all of them.

Starting with the respiratory system first of all, they state that it produces chronic laryngitis, chronic bronchitis and all the complications that come in its train ; that it aggravates the disease of the tuberculous and predisposes them to tuberculous laryngitis, and that it may be an important factor in the production of growths of the lung.

The circulatory system is even more seriously affected, since, according to them, it produces palpitations and arrhythmias from extra systoles to heart-block ; further, it causes angina pectoris and hypertension, and one writer even attributes to it atheroma of the aorta and coronary vessels, and even aneurysmal dilatation of the aorta.

The digestive system they hold is also seriously affected. In their view it causes salivation with dimminution of the digestive power of the saliva, glossitis, leukoplakia, decay of the teeth, pyorrhœa, pharyngitis, œsophagitis, cardiospasm, hypersecretion or increased mobility of the stomach, hyposecretion, diminished mobility and dilatation of the stomach, duodenal and gastric ulcer, colospasm, constipation and diarrhœa.

On the genito-urinary system, its effects are not so marked, but it causes impotence in the male and lack of fertility in the female, and, worse still, causes abortion of pregnant females and poisons their milk. It produces atrophy of the endocrine glands, with all that this entails.

But it is on the central nervous system that it is held to have its worst effects. It produces blindness and amblyopia, toxic polyneuritis and many indeterminate neuralgias and neuritis, but its organic effects are trivial in comparison with its effect on the mind. In this department it causes insomnia, irritability, agoraphobia, feelings of intense distress and fears of dissolution, loss of memory, motor aphasia, pseudo-epileptic attacks, loss of intellectual power, and physical and moral energy. It weakens the will and predisposes to alcoholism and moral perversions.

Worse still, it leads to crime. M. Poucel quotes two authorities on the subject : President Hoover said, " There is no agency in the world that is so seriously affecting the health, efficiency, education and character of boys and girls as the cigarette habit, yet very little attention is being paid to it. Nearly every delinquent boy is a cigarette smoker. Cigarettes are a source of crime." Commissioner Lamb, of the Salvation Army, said on behalf of the Army, " Our own view of the subject of the cigarette habit is that the smoking habit either breaks down legal restrictions or creates a sense of indifference to them, as witness how often " No smoking allowed " or " Smoking prohibited " is deliberately ignored, the faculties being so blunted that the notices are really unseen. Often when attention is drawn to them, it is resented or sullenly received. This being so one can well understand that it would not be too far-fetched to associate a habit of this order with a drift towards conduct which ultimately leads to a breaking of the Law."

Not only crime is produced by smoking, but the act leads to explosions, forest fires and other disasters, not merely because of the physical agent of the fire itself, but because of the tobacco-created callousness, selfishness and stupidity of tobacco-smokers.

A formidable indictment, and if even half is true, it would appear to be out duty as citizens not only to stop smoking ourselves, but to form one all-embracing anti-tobacco league to hound down any miserable remnant of addicts to this anti-social habit.

Weighty as these charges are, the evidence on which they are made is of the most superficial, and rarely rises above the " it is generally recognised " and " there can be no doubt " class, and M. Poucel, who cannot himself be acquitted of exaggeration, is driven to say about some authors, " If the moral intentions of the authors of these assertions are excellent, their aim is not achieved by these exaggerations."

We must first consider the toxicological effects of nicotine which are certain and established by experiments on animals and then consider whether nicotine has the same effects on human beings. According to Cushing, the effects of a poisonous dose introduced into man or other mammals is a burning sensation down the œsophagus to the stomach followed by salivation, nausea, vomiting and purging. The pulse at first slow becomes rapid and thready; there is great muscular weakness and mental confusion, giddiness, loss of co-ordination, and finally, unconsciousness, clonic spasms and finally tonic spasms with respiratory failure and death.

The characteristic toxic effect of nicotine is to cause primary stimulation of the autonomic system followed by depression and paralysis. Thus it first causes slowing of the heart, caused by stimulation of the vagus, followed by acceleration of the pulse, followed by vagal paralysis. Injection of nicotine intravenously causes a big rise in blood pressure due to vascular constriction, which gives place to a fall due to vasoconstriction and subsequent relaxation.

Most of the secretory glands are stimulated by nicotine followed again by depression. There is increased salivation followed by depression, increased sweating and increased secretion of bronchial mucus. It is probable that the secretion of the gastric glands is first stimulated in the same way, but in all these cases depression follows rapidly and is more lasting than stimulation. Stimulation of the motor ganglion produces exaggerated gastric and intestinal movements, causing vomiting and diarrhœa. These again being followed by slowing or arrest of the bowel movements.

The direct effect on the central nervous system is more obscure, but Cushing seems to think that nicotine stimulates the medulla, giving rise to increased respiratory movements, eventually leading to paralysis, and that it leads to a short-lived stimulation of the higher centres followed by depression.

It is important to note that these effects have only been observed in experiments on animals in doses and by methods which have little analogy for human beings, but some of the effects seem to be basic properties of the action of nicotine and probably operate in attenuated form in nicotine poisoning in human beings since the mode of death in fatal cases is almost identical with that seen in the experimental animal.

Even the most ardent smoker can hardly deny that tobacco is toxic under certain circumstances. There are several cases on record of murder and suicide by means of decoctions of nicotine, and many of us can remember with pain our first essays at smoking. Watching a novice smoking his first large cigar affords valuable clinical evidence. The joyous abandon becomes anxious bravado, he becomes anxiously silent, the puffs become slower and shorter, clammy sweats bedew the brow, the face becomes almost greenish in hue. Pretence is forsaken, the cigar is abandoned, the victim feeling faint and staggering, exhibits convulsive heaving of his diaphragm, which heralds projectile vomiting, and he collapses exhausted, with no sentient emotion save a hope for death. Most smokers go through a period of these sufferings since their earliest efforts are usually frowned upon or illicit and necessarily deprived of expert guidance and advice. It is surprising that, in face of these unfortunate adventures, the would-be smoker persists, but he soon reaps his reward, for in a very short time he finds he can smoke with apparent impunity and real enjoyment. He has acquired that tolerance which is one of the interesting qualities which tobacco possesses. Experimental animals do not develop this tolerance quite so easily as man, but they do develop it, and rabbits can be trained to stand a dose of nicotine nearly a hundred times the theoretical lethal dose. Some people never acquire tolerance and have to give up smoking in consequence. No one can get an absolute tolerance, but there are as many degrees of it as there are smokers. One can smoke ten cigars a day without any apparent detriment, another only ten cigarettes without untoward effects. Again, in each individual tolerance varies from day to day and hour to hour. Most people would find it difficult to smoke a six-inch Havana cigar before breakfast, while smoking it with enjoyment after dinner. Many find themselves unable to smoke pipes or cigars before mid-day, when perhaps the less strong cigarettes have built up their tolerance for the day. A specially strong tobacco or a foul pipe may bring symptoms of

intolerance in even the most hardened smoker. Further tolerance may wane with the years, and old men sometimes find difficulty in continuing to smoke the quantity of tobacco they were accustomed to smoke in youth. To have acquired a tolerance for tobacco means that one can smoke without unpleasant symptoms, but does not mean that tobacco is not producing toxic effects when they are not felt. Certainly if one draws an analogy with the tolerance for alcohol, where the toxic effects are known, one often sees patients whose liver and nerves are destroyed by alcohol while the symptomatic tolerance for alcohol remains unaffected, so it may well be that when one is smoking one is living in a fool's paradise.

I gave a list of the deleterious effects which tobacco is said to have on the various systems, and I am now going to consider them in detail and see what evidence there is that tobacco does cause the evil effects it is alleged to produce. Right at the start one is faced with the difficulty that there is remarkably little reliable evidence in either direction, and it is really extraordinary how little reliable work has been done on the subject.

Taking the respiratory system first of all, common experience shows that tobacco smoke, like other smokes, is irritating to the bronchi, since it causes coughing in those who are not used to it or in those who are suffering from chronic bronchitis or laryngitis or any other inflammatory disease of the lungs. Whether it causes a bronchitis or laryngitis of itself is more doubtful, but cases are sometimes seen where abstention from smoking produces a complete cessation of cough and attendant sputum, so that it is at least probable that it can cause these conditions, and the smoker's cough is a condition traditionally recognised, although it is unwise in practice to make this diagnosis unless every other possible cause has been eliminated. There seems to be no valid evidence that tobacco aggravates tuberculosis or predisposes the tuberculous patient to tuberculous laryngitis, unless it does so by producing a bronchitis. There is no evidence whatsoever that carcinoma of the lung is produced by tobacco any more than there is any evidence that there is not.

Next the cardio-vascular system. There seems to be some evidence that tobacco causes extra systoles in susceptible people in common with other factors, such as late nights, alcohol, large meals and so forth. There is no evidence whatsoever that this means any disease of the heart itself, and, in fact, all the available evidence is to the contrary. There is nothing to suggest that it causes permanent hypertension. In some cases smoking seems to cause a slight rise in blood pressure which is temporary, but the rise is small, only a few millimetres at the most, and there is no reason to believe that this slight temporary rise leads to permanent changes any more than there is that the rise of pressure which accompanies exercise leads to the same effect. In a study of 13,000 random subjects, 1,021 had blood pressures above the normal figures, but analysis of these 1,021 showed that high blood pressure was no more common in those who smoked than in those who did not. There is no evidence that tobacco predisposes to atheroma of the aorta, although atheroma is said to have been produced in rabbits by nicotine, but atheroma has been produced in rabbits by so many different substances that little reliance can be placed on this type of experiment. There is no unequivocal evidence to show that angina can be caused by tobacco alone, although it is just possible that it may be one of the factors capable of producing angina in patients already having a lesion of the coronary vessels liable to produce angina. There is experimental evidence to show that nicotine can cause vascular spasm in animals, and although it is not certain that a human being ever absorbs enough nicotine to produce such spasms, the possibility must be accepted, and the traditional association of Buerger's disease with excessive cigarette smoking is evidence in this direction, but here apparently predisposition must be taken into account, and the most one could say in this context is that it is specially unwise for Polish Jews to smoke large numbers of cigarettes. There is only one case on record of heart-block due to smoking, and even if we accept this case the fact remains that the effect of tobacco on the heart is not serious. I will return to this question later.

Slight soreness of the tongue is such a common occurrence in smokers that there is little doubt that a glossitis can be caused by it, and tobacco must take its place amongst the other irritants capable of producing epitheliomata, although this condition is by no means confined to smokers. Tobacco certainly blackens the teeth, but pyorrhœa and caries are no more frequently found in smokers than in non-smokers. Experimentally it produces salivation, and the saliva does appear to have less amylolytic value; how far quantity makes up for quality is not known. In some people it causes a pharyngitis, and the possibility of œsophagitis cannot be excluded, although it appears to be a rare cause of this condition and it appears to play no part in so-called cardiospasm (achalasia). One would have thought that there would be no room for doubt as to the effect of tobacco on the secretion of gastric juice, but there is little real evidence, and most of it is contradictory. It is probable that the effect is a question of dosage. I have already mentioned that the effect of nicotine in

general is to cause, first, stimulation and then depression, and this may help to explain the divergent results. Clinically, there appears to be little doubt that nicotine causes increased peristalsis of stomach and intestine, nor is there any doubt experimentally that it can also cause the reverse. Many people, for example, smoke to stop their hunger pains, while others find them aggravated by smoking, again probably a question of dosage and susceptibility. Although it appears to cause pain in patients suffering from a gastric or duodenal ulcer, there is no evidence that tobacco does in fact act as a predisposing cause of ulcer. The only reliable series of cases I have been able to find is one investigated at the Robert Bent Brigham Hospital in America, where about 500 cases were studied and ulcer was just as common in non-smokers as in smokers.

Benjamin Disraeli in one of his novels mentions that tobacco is the tomb of love, but there is again no evidence whatever that it causes impotence or lack of desire in males, and equally it is quite certain that it does not cause abortion in females. Mr. McNair tells me that it sometimes causes infants to pass meconium *in utero*, and it is possible that it causes slight acceleration of their fœtal heart sounds, but there do not appear to be any permanent ill-effects.

You will remember that the anti-tobacconists hold that it is the central nervous system which is most seriously affected by tobacco. Tobacco can certainly cause amblyopia and amaurosis, although only in an infinitesimal number of cases relative to the great body of smokers, and here idiosyncrasy must play a big part. I could find no evidence that tobacco does in fact produce any other form of neuritis. The discovery of the spirochæte was a disaster for those who were making a case against tobacco, and the reports of paralysis and insanity due to tobacco date from before the discovery of this organism, although they have been repeated and copied down from the literature of the period. Tobacco plays no part in these conditions.

It is more difficult to decide the possible effect of tobacco on the mind. Those who are hostile to tobacco have no doubts. M. Poucel, whom I have quoted before, states in a passage of real forensic eloquence, which, alas, loses in translation, that " while the debasing effect of nicotine may not be apparent in the exceptionally well-balanced individual, in those whose balance is more precarious the effect may be catastrophic, and it is thus that psychologists see mere remnants of humanity, miserably dragging out their decadent existence; haggard wrecks without more personality than ghosts, like robots, living corpses with vacant eyes and lifeless gestures." M. Poucel is a man who deprecates exaggeration, but he must have been unusually unfortunate in his circle of acquaintances. But he is not alone in his charges. Lack of will power and moral sense, thoughtlessness, selfishness, rudeness and depravity are regarded as the smoker's most common characteristics.

Without being unduly biassed, it is difficult to recognise this picture of the smoker. Everyone knows smokers who may present one or all of these characteristics, but in that they do not differ from their non-smoking brethren. The popular idea of the smoker is really far otherwise, and when a caricaturist wants to depict a man of philosophic turn of mind, of pleasant disposition, of steady honesty, with a sympathy for his fellow mortals, possessing the common touch, their readiest device is to put a pipe in his mouth. Mr. Baldwin was one of the first to recognise this and put it to good service. " How," said the public in effect, " can there be anything but good in a man who smokes a pipe? " As regards the effect on intellectual work, it is probably safe to say that at least as many intellectual workers are smokers as non-smokers. Anti-tobacconists produce lists of famous men who did not smoke; one could easily produce much longer lists of famous men who did. But such lists prove absolutely nothing. Napoleon is held up as an example of a non-smoker who, so to say, made good, and he is quoted as saying that tobacco was only useful to " fill up the idleness of wasters," but as he himself was addicted to snuff, his opinions may be received with reserve. If to be a dictator is the highest ambition to which mankind can aspire, one can only say that tobacco is neither a help nor a handicap for such achievements. If one studies the dictators in Europe from the point of view of tobacco, you will not receive much help. Hitler, I believe, does not smoke; Mussolini I can imagine smoking a cigar, although I have never seen a photograph of him doing so, whereas Stalin, like Mr. Baldwin, is rarely photographed without his pipe.

The evidence for and against the effect of tobacco on mental efficiency and character is very scanty. There has been an attempt to trace a connection between tobacco and crime, as I have pointed out before. In Holland, where it is the custom for Dutch boys to smoke at an early age, smoking is not a mark of moral delinquency, so far as is known. It is not the custom in this country for children to smoke, and smoking in young delinquents is merely evidence of that neglect and environment which is the true cause of their delinquency. One writer on the subject sent round a questionnaire to various schoolmasters

and was told that most of the bad boys smoked. Those of you who have read " Eric, or Little by Little," will remember how this characteristic was possessed by all the wicked boys of his school, and how they invariably attempted to undermine the virtue of the good boys by teaching them to smoke. More scientific attempts have been made to assess the effect of smoking on scholarship. What little evidence there is suggests a slight advantage in the favour of non-smokers of school age. If intelligence tests are performed there is nothing to show that they are less well done after smoking than before. Forgetfulness is said to be characteristic of the smoker, but on what evidence I do not know, but experience does not seem to suggest a connection between the two in the causation of a condition which is an exceedingly common feature of human beings in general.

The onus of proof of the detrimental effects of tobacco seems to me to rest on those who have formulated the accusations since the conditions and deleterious effects they describe are not to be detected in our common life. Smokers on the whole do not appear to be any less efficient or less intelligent than the rest of their fellow men. Whether they could be more efficient or more intelligent is so far impossible to prove. Nor do they seem less healthy and vigorous than their non-smoking fellows. Again they might be even more healthy and even more vigorous if they did not smoke, but they are healthy notwithstanding, and I think one is forced to the conclusion that while mankind might conceivably be better without smoking, the deleterious effects which can be attributed to it are relatively slight. While recognising the theoretical bad effects of nicotine, they are not experienced by those who smoke in moderation. The whole question is begged by the word " moderation." What is moderation? It varies with the individual, and a moderate amount for one smoker might be an impossible amount for another. I myself am conscious of no ill-effects from smoking, except that if I smoke cigarettes when I have bronchitis it makes me cough. M. Poucel would say I was so bemused by the fumes that I was unable to recognise them. At lunch in the College the other day while thinking of giving this lecture, I mentioned that I did not think that tobacco caused any symptoms in normal people under normal conditions, and I asked the six people lunching with me whether they noticed any. I was amazed at the result. One man had abdominal pain if he smoked in the morning, another had extra systoles if he smoked more than ten cigarettes, another had præcordial pain and palpitations if he smoked, two more had pharyngitis and glandular enlargement as a result. All I may say continued to smoke. I am going to send round a questionnaire after this lecture, and I shall be very interested to know if any of you have symptoms from smoking.

Obviously, if you get unpleasant symptoms from smoking you ought either to smoke less or give it up or alter your smoking habits.

I mentioned at the beginning of this lecture, if I may call it so, that I was not going to presume to give any advice on the subject of smoking, but I can summarise my own impressions of the position and tell you what my own advice on the subject of smoking is to patients.

I believe that tobacco does no harm to anyone if they do not have symptoms from its use; that even if it does give symptoms it does no permanent harm, or at all events no harm that cannot be undone by stopping smoking. I believe that the toxic effects of tobacco are greatly exaggerated, and that its effect on physical health are largely mythical. Some of you who are athletes may know more of the effects of smoking on their wind and endurance than I do. I know that athletic coaches, as a rule, consider smoking during training as a sin against the Holy Ghost, but athletic coaches often have peculiar ideas crusted with hoary tradition and devoid of substance, and I believe Dr. Adolphe Abrahams, who has much experience of physical training of athletes, believes that the effect on training is negligible, and there are many observations by athletes to the effect that smoking makes no difference to their training if their training is thorough in other respects. At all events, even if it does slightly reduce the capacity for muscular exercise, it is purely a temporary effect. There used to be a belief that smoking, stunted growth and the smoking gutter-snipe was pointed to as proof, but this was merely an argument which allowed busybodies to snatch cigarettes out of their mouths while denying them the proper housing and feeding which was the real cause of their underdevelopment. If you ask me directly whether the world would be better if there were no tobacco, I might be hard put to it for an answer. I dare say it might, but there are so many things that one might conceivably do without if one were to be content to live like the beasts in the fields. If your patients ask your advice about smoking you must use your common sense. If smoking makes your patient cough or his voice is husky, then he should not smoke. If he has extra systoles and cardiac distress then he is smoking too much, and would be better without it. If he gets angina when he smokes he will stop smoking without advice. If smoking burns his tongue then he must stop smoking or change his tobacco. Since the effects of tobacco on

gastric secretion and motility are equivocal, it is probably wise for the dyspeptic to refrain from smoking. In general, if a patient has any symptoms presumably due to tobacco, stop him smoking. If his symptoms stop too, then he should not smoke again; if they last they are not due to smoking, and he can do what he likes.

Why does the smoker smoke is a question anti-tobacconists often ask. It is a question which can only be answered by saying that he smokes because he likes it. He likes it partly because he likes the taste, partly because he likes watching his clouds of smoke, partly because he likes the rhythmic movements, or likes sucking his pipe, tapping his cigarette, alternately drawing in his smoke and then puffing it out again, filling his pipe, knocking it out, smelling his cigar, and a whole host of things which the smoker does automatically without conscious thought, and partly because he finds that when he smokes he feels at peace with the world, and with his neighbour, partly because he associates it with good-fellowship and good companionship—in fact, because he likes it. It may be an idle way of filling up an idle moment, but there are many worse ways. If he smokes in moderation it will do him no harm. Every man must find his own standard of moderation, and there are common-sense rules to apply to smoking as to everything else.

I personally believe that pipes and cigars are healthier than cigarettes, partly perhaps because you smoke less of them, also partly because they usually contain more dust and impurities, their smoke is more irritating, more bits are swallowed, and perhaps because they are more readily inhaled, and possibly more nicotine is absorbed as a result. You must take simple precautions. Your pipe must be clean, firstly because the taste of the tobacco is better, secondly because if it is not you swallow as well as inhale the nicotine. If you are wise, you will not relight an extinct cigar once it is cold or relight a dead pipe; again, you will not do it if you have any appreciation of the taste of tobacco, and you should not do it because you get more nicotine if you do. If you get symptoms from smoking give it up. It is not so difficult to give up smoking as it is said to be. The anti-tobacconists talk about it causing obsessions and an irresistible craving for tobacco in the same way that we talk about addiction to opium or cocaine. Smoking is a habit and, like all habits that are of long standing, is not easy to give up, but I think you will find, or have found, that when the reasons for not smoking are good enough, it is not difficult to stop smoking once you have stopped the automatic habit of taking out a cigarette or lighting a pipe at the customary times. Much of the difficulty some people have in stopping smoking is due to auto- and mass-suggestion. One may have a feeling of loss or regret, but there is no imperative craving for nicotine as such. You would find just as much difficulty in giving up other long-established habits —your morning cup of tea, your hot bath, or your extra half-hour in bed—and the man who says he will go mad if he cannot get a smoke is either dramatising his sensations or else is a study in psychopathology. Fortunately, there appears to be no need to give it up, since smoking reasonable amounts of tobacco does no harm, although you would be wise to avoid the principle of moderation of Mark Twain who said he had made a resolution never to smoke when asleep or when eating.

I have said nothing of the virtues of tobacco, and indeed I do not know if it has any, but others have felt differently about it. Burton, whom I have quoted before, had strong views on the abuse of tobacco, but he also called it "Tobacco divine, rare, super-excellent tobacco, which goes far beyond all the panaceas, potable gold and philosopher's stones, a saving remedy to all diseases," and Dr. Samuel Johnson, himself a non-smoker, said at a time when tobacco was undergoing a temporary decline that insanity had grown more frequent since smoking had gone out of fashion. If you want an even more exaggerated tobacconists' counterblast to even more exaggerated anti-tobacconists like Dr. Poucel, you can quote Mr. Kemp, M.A., who wrote in 1655. He said: "It hath singular and contrary effects; it is good to warm one being cold and to cool one being hot. All ages, all sexes, all conditions, young and old, men and women, the sanguine, the churlish, the melancholy, the phlegmatic, take it without any manifest inconvenience; it quencheth thirst and yet will make one more able and fit to drink, it abates hunger and yet will get one a good stomach, it is agreeable with mirth, in sadness, with feasting and with fasting, it will make one rest that wants sleep and will keep one waking that is drowsing. It hath an offensive smell to one and is more desirable than any perfume to others; that it is a most excellent preservative, both experience and reason do teach; it corrects the air by fumigation, and it avoids corrupt humours by salivation; for when one takes it either by chewing it in the leaf or smoking it in the pipe the humours are drawn and brought from all parts of the body to the stomach and from there rising up to the mouth of the tobacconist as to the helm of a sublimatory, are voided and spitte out. . ." It has been even suggested that it is an aid to theology. George

Withers, when in goal for fighting for the Parliament, wrote a poem to solace his imprisonment, of which I will quote only one stanza :—

> And when the pipe is foul within
> Think how the soul's defiled with sin
> To purge with fire it does require
> Thus think and drink tobacco.

These are attempt at gilding the lily. Smoking is a pleasant sociable exercise which does no harm to any reasonable man, and used reasonably is not offensive to those who, equally reasonably, do not smoke. It is a luxury which one could do without but sees no need to. As for attempts of anti-tobacconists to make our flesh creep, one can reply in the words of Calverley's ode to tobacco :—

> I have a liking old
> For thee, though manifold
> Stories I know are told
> Not to thy credit.
> How one or two at most
> Drops make a cat a ghost.
> Doctors have said it :
> How they who use fusees,
> All grow by slow degrees
> Brainless as chimpanzees,
> Meagre as lizards.
> Go mad and beat their wives,
> Plunge (after shocking lives)
> Razors and carving knives
> Into their gizzards.
> Confound such knavish tricks.
> Yet know I five or six
> Smokers who freely mix
> Still with their neighbours.
>
> Cats may have had their goose
> Cooked by tobacco juice,
> Still why deny its use,
> Thoughtfully taken.
> We're not as tabbies are ;
> Smith, take a fresh cigar,
> Jones, the tobacco jar.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Sunday, September 19th

VERY little sleep owing to the row, but I kept on looking out and seeing only distant land. When I got up at 7, however, I found we were just docking. Packing was hurried, and then I had to go to the immigration officer before I could breakfast. He was searching but friendly, and made me show my hand to the port doctor, a charming old chap, who went into a cabin to show me his war wound, a suture of the musculo-spiral, entirely successful.

Watched unloading for a few moments—some hunters, grindstones, and many bales of cotton, sent to England and shipped back owing to a change of price or market conditions. Crew as usual. After Customs, went out and finally said good-bye. Took a taxi in which squashed the " Sisters," " Judge," " America " and my luggage, and drove across Boston to the Puritan Hotel. " America " signalises repatriation by becoming a tough guy, and he seems at once a stranger, and I am a little ashamed of him. He has used all his linen, and comes ashore with a kind of dirty cardigan and no shirt, an open coat, no hat, and all his washing in a bundle. The Puritan seem mildly shocked, but in a democratic country cannot say so. Cheapest rooms $3\frac{1}{2}$ dollars ; I get one for 4, but it is far better than one would get for £1 in England—in fact, a suite.

Driving up, " Judge " and I could not find anything that struck us as unlike an English town, nothing comparable to the Continental differences. We therefore went with " America " to inspect Harvard. From the hotel we went almost immediately over a fine bridge spanning the Charles River, which is here crowded with small yachts at moorings. I am sorry to say that all are motor cruisers, but probably any sailing boats would be kept further down, where there are no bridges to negotiate. On the other side we turn along the river bank, past the houses of Cambridge, the intellectual suburb of Boston centred round Harvard. Harvard we inspect at some length, but being Sunday cannot get into anything. The centre of the University seems to be the " Yard," a place which is looked on with the deepest veneration. It was perhaps a little wistful to hear the enormous enthusiasm of the two youngsters describing the old buildings, going back in some cases nearly 300 years. There is an atmosphere of Oxford and Cambridge—buildings set in lawns with old trees about them, but the great difference is that nothing is really old enough to have been built in an unselfconscious mood, and the buildings are a little disappointing, some frankly ugly in an attempt to decorate bricks in the Keble way, and that there are no real quads, and no feeling of a unit. The buildings are put down at very generous but equal distances,

the whole giving the idea of pepperpot planning in unlimited space. The atmosphere of rest is delightful, the enthusiasm of the alumni exceeds ours. They know all the buildings, and can give you facts and figures about them. Above all, there is a service of guides to show visitors round, run entirely gratis by volunteer undergraduates. The buildings in the Yard are partly residential houses, partly chapels, libraries, museums, examination halls, seats of faculties, and so on. In the houses live the freshers, and they are subjected to fairly strict discipline. Outside, along the river bank, are a series of " Houses" These are well-planned buildings, quite modern, and house the senior students. They are the nearest approach to an Oxford College, and are, they say, already differentiating out into fashionable, sporting, and so on.

After tracking out a Childs (U.S. Lyons) for lunch with " America " and " Judge," we parted, they to the *Daisy Bell*, I to the hotel to unpack and sleep. Message from Cattell for to-morrow. At six, rang up the authoress and invited myself to supper. Tube to Harvard Square, and then a walk of a mile and a half through what must be one of the most beautiful residential quarters in the world. Along a winding road so thick with trees as to be like a scattered wood, or a wooded park. All the houses along it are built of wood, but not the wood-for-cheapness of Essex, but wood-because-it-is-local, wood used for beautiful shapes, roofs, pillars, balconies, and so on, and in most cases painted cream. The houses are set in lawns among the trees, with hardly any boundary, in many cases none visible, between the road and each other. They are lovely houses, and the authoress lives with her father in one of them. He is a first-generation American, and obviously very able. We have supper and then retire to an attic study, where he plays a full-length Brahms Concerto on a radiogram—most delightful.

Impressions—that Boston is far more like England than any European country. Two entirely new things—the use of wood in building and its beauty, and the American Sunday paper. This is a huge thing, 1 to 1½ inches thick, like eight to twelve *Times* together. There are all sorts of entirely different sections, and it is, in fact, divided up among the family.

Monday, September 20th

After a poor night, I am called at 6.30 a.m. and breakfast at 7. Cattell calls at 7.45—a tall, young, humorous man in Harris tweed. We drive to the Baptist Hospital, a large (100 beds at least), entirely new, very beautiful, private hospital. Apparently built for Lahey by friends, admirers and patients. It stands on a hill, and from the roof the whole of Boston, the harbour, and the surrounding hills can be seen. Everything delightfully built without ostentation. Corridors mostly black marble effect, with some kind of rubber marble tiles. Walls and roofs are all soundproof. The whole place is " air-conditioned," a tremendous plant for washing and cooling, which I saw in the basement. The theatres are black, white and grey, moderate size, very simple, with a slightly raised " dock " for unprivileged visitors, and rubber stands on the floor for the elect. The electric switches are non-sparking (Grouse Hinds), the lamps have mercury non-sparking switches, floor, table and every trolley is earthed. Apparently there have been lots of explosions in America.

Up to theatres. Both Cattell and Lahey working. Lahey short, Irish, a great talker who has his patter perfectly, age about 55 in appearance —a 50-50 cross between Moynihan and Steve Donoghue.

Cattell's first case is a woman with advanced heart disease. Ten years ago she had embolism of the aortic bifurcation. He opened both common iliacs and extracted clots from both with complete recovery of limbs and no recurrence. Some years later he did a radical for carcinoma of the breast. Now she has carcinoma at pelvi-rectal junction, and he is doing first stage Lahey resection. He believes hardly anything is inoperable in cancer. They nearly always try, and very often resect even where there are metastases, as the patient's condition improves so greatly when the main mass is gone.

Operation.—Incision, longish one *outer* side of L. rectus. He goes right through muscle (says he wants muscle on each side of colostomy). Ties, after dividing, deep epigastrics. Cuts one or two nerves going to rectus, says this does no harm. Then he isolated the bowel (many adhesions from previous operation) and verifies growth. Then divides mesentery from point select-

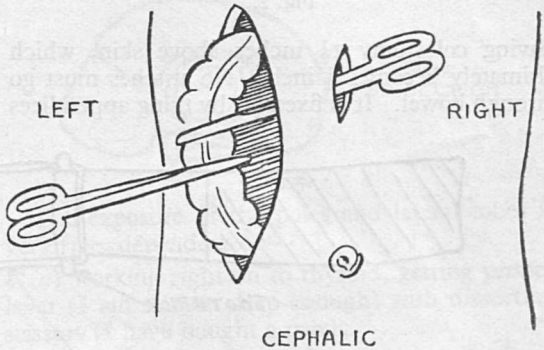

Fig. 1.

ed for division down to sup. hæmorrhoidal vessels, not, of course, touching these. Makes small opening mid-line. Passes Ochsner through this opening and crushes across bowel; another Ochsner half-inch away (Fig. 1). The bowel is cut across with electric cautery and well seared each side. Distal end brought out by clamp, while edges of wound held apart to prevent touching. Gauze is laid all round this, keeping it out and dressing wound. Clamp left on, will be left on four days. Irrigation will be started later. Proximal end is tied round with gauze (like I do duodenum). Then first the gutter outside it is closed by stitches from cut end of mesentery (see Fig. 2) to parietal peritoneum. One bite of mesentery to three or four of parietal. When this is closed, abdominal cavity is shut from site of future operation by suturing great omentum to cut edge of mesentery, starting with " key " stitch (Fig. 2) at V. Lastly, incision is closed round upper end. He aims at

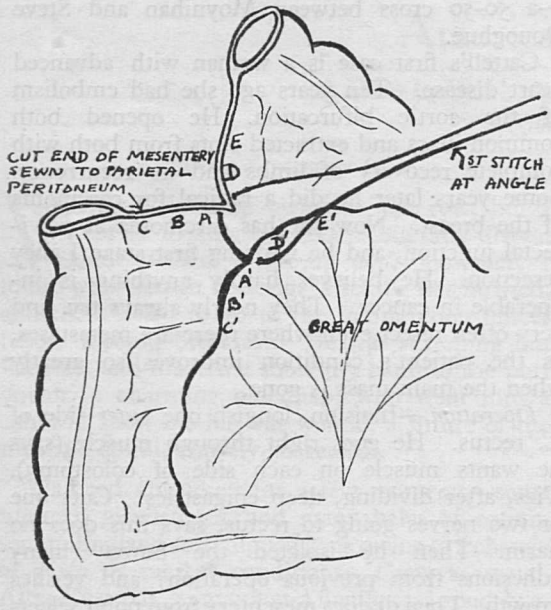

Fig. 2.

leaving colostomy 1½ inches above skin, which ultimately becomes ½ inch. No stitches must go through bowel. It is fixed (*a*) by tying appendices epiploicæ in sutures to aponeurosis, (*b*) by gauze dressing, (*c*) by clamp. Clamp off 36 hours.

TWO DODGES FOR COLOSTOMY IN SHORT COLONS

1. Umbilication.—Skin round the colostomy is sewn down to rectus sheath by interrupted catgut stitches. Stitches must take derma only and not go through skin. No need to remove fat.

2. Mobilise splenic flexure and descending colon, when unlimited length can be obtained.

Pre-operative.—

Goitres : Nembutal ..... gr. 1½.
Morphia ..... gr. 1/6th.
Hyoscine ..... gr. 1/200th.
Followed by cyclopropane.

Spinals : Nembutal ..... gr. iii.
Others the same.

They use cyclopropane very widely, and spinals also (Nupocaine (? Percaine) by Howard Jones technique).

Lahey.—Intrathoracic goitre.—A nice case that went well.

Cattell.—Another goitre.

Poppen.—Herniation of nucleus pulposus into spinal canal between L.4 and 5, causing sciatica. This case and the goitres will better be considered together.

After operations, Cattell went round the whole hospital, or at any rate such patients as needed seeing. Apparently it is understood that visitors come in. Cattell sees all Lahey's cases. Several points in the round :—

1. A very nice American habit of good wishes cards. Each patient has dozens round the bed, like Christmas cards, and, like them, varying from beautiful to crude, from sentimental to vulgar, but all designed to cheer up the sick.

2. Excellent fastening for dressings.

3. " Ace " elastic bandage on a head dressing (half-way between woven and crepe) (Fig. 3).

4. Clinical examination of thyroids :—

(*a*) Inspection.—Get head in mid-line, and line up chin and episternal notch. Displacement of trachea easily seen, and often clue to intrathoracic pressure.

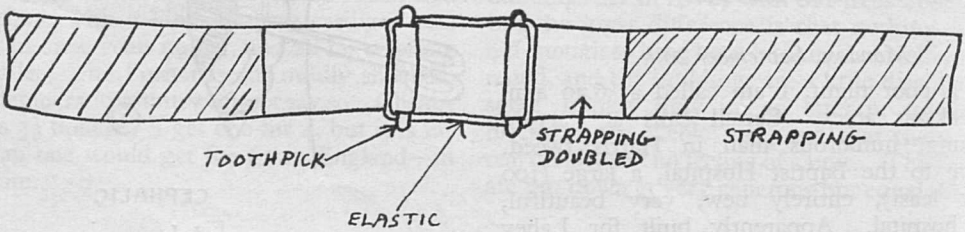

Fig. 3.

(*b*) Palpation.—1. With the thumb of one hand press larynx towards side to be examined. Trachea cannot be pushed, but larynx can.

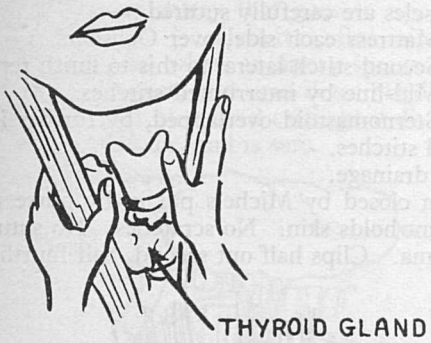

Fig. 4.

2. With other hand press fingers well behind sterno-mastoid into posterior triangle and draw them forward; feel thyroid between these and thumb, deep to S.M.

Cattell gave me lunch, and I then took a taxi to the Massachusetts General, and dug out Oliver Cope. He is a handsome young fellow of about thirty, fair-haired, blue-eyed, very able, but very modest. Has worked with Dale, knows all about endocrines from every aspect, and makes me feel most ignorant, not intending to do so, but in his eagerness pouring out information as if it was all old stuff to me. Gives me lots of advice, wires to Cushing, fixes visits to Cutler and Allen here, and in the evening takes me out to dinner at his father-in-law, about twenty miles in the country. I have no time to discuss the evening, but it was a lovely drive through the sunset and rising full moon in beautiful park-like country to a wonderful low wooden house of great size and simplicity. Good food, intelligent talk, blazing log fire with big dogs, and a drive back in the moonlight.

Tuesday, September 21st

Frank Lahey himself called for me this morning once again at 7.45 and took me to the Baptist in a 12-cylinder Cadillac that seems to beat the band for springing. He had two goitres, very bad toxic ones, and a gall bladder; Cattell some small ones. Poppen another nucleus pulposus sciatica. I must put observations by me, and talks by both Lahey and Cattell, in one summary of thyroid practice.

The technique is magnificent. One may dislike some things like muscle cutting, but they have a reason for all they do. However, the standard is one that most surgeons could not possibly approach. They each operate with four assistants washed up, an instrument Sister and another, a senior and a more junior man. Lahey's Instrument Sister has been with him ten years or more and is just too good to believe. All the team talk, when they do, in the quietest tones imaginable, yet they hear. Every step is anatomical; bleeding never seems to happen, yet they display all sorts of things that we ignore. Cattell does all his own operations, Lahey leaves the opening and closing to an assistant, chiefly because he wants to talk, and he does talk well.

Thyroids.—

Anæsthesia.—Cyclopropane.

Incision.—The collar. They cut partly through the skin with a knife—a deep scratch—and finish with scissors, pushing them as cutting edges rather than as shears. The idea is to avoid cutting subdermal veins. Points Lahey makes are :—

1. The incision must be a curve and not straight.

2. It must allow for bulges over tumours. When these have been removed the scar will lie at a lower, never a higher, level. Therefore with an incision over a unilateral goitre, that part over the swelling must be higher than that over the normal neck. If the goitre is a big colloid one the incision must be high, or the scar will lie later over the sternum—a most unsightly place.

Skin and platysma turned up as usual; downwards only just free at edge. Hæmostasis as they go. Then dissect along free edge of sternomastoid, lifting it free of deep muscles for about half its width and up to omohyoid. The mid-line is then opened down to thyroid, and split full length. The pretracheal muscles are divided between two pairs of Ochsners for the width of their blades, leaving the descending branch of the hypoglossal which runs in the outer part vertically. Division is high up—

(1) because the high part of the thyroid is the difficulty (upper poles and median lobe);

(2) because it leaves the greater part unparalysed;

(3) because skin and muscle incision are well staggered.

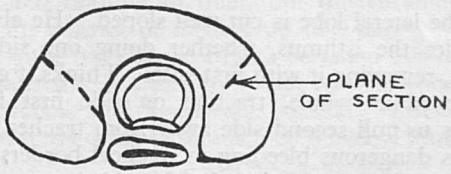

Fig. 5.

The exposure of the poles and lateral lobes is very free, depending on—

(*a*) working right on to thyroid, getting proper layer (I am seldom deep enough) with dissecting scissors (I have bought a pair);

(*b*) plenty of retraction and good anæsthetic;

(*c*) division of muscles ; in one Cattell cut partly across the sternothyroid, to expose upper pole ;

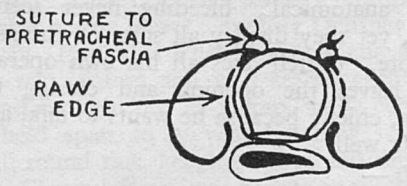

Fig. 6.

(*d*) complete hæmostasis. They work by opening either scissors or artery forceps in doubtful corners, and always double clamp and ligate. For instance, " anterior sup. " branch of thyroid artery which runs towards isthmus apparently parallel to superior pole, but in the muscle rather than the gland, is always got and tied.

The upper pole is completely freed and held out, and then with a Lahey " passer " (small aneurysm needle with a corkscrew twist) the vessels are double ligatured. Above the inferior cornu of thyroid cartilage, the recurrent laryngeal is deep to inferior constrictor, and cannot be damaged. A Spencer Wells is put on the upper pole and pole cut between. A row of double hooks are then put along the edge of the gland, and it is held well up, and over to the other side, while an assistant puts retractors in holding sterno-mastoid and carotid sheath aside. Exposure is marvellous and bloodless. Lahey dissecting with scissors still, ties middle thyroid vein, exposes and clears inferior thyroid artery, demonstrates two parathyroids, finds the recurrent laryngeal and snips fascis from in front of it, so that it falls back quite free. Then only does he put on a series of forceps and cuts through back of gland, leaving parathyroids. He only cuts a groove round, and then goes to lower pole, and with his blunt forceps point dissector, ties everything, then dissects and ties isthmus away from trachea, then ties off and cuts isthmus, and finally follows up any pyramidal lobe.

The lateral lobe is cut well sloped. He always divides the isthmus, whether doing one side or both, removing it with first side. Thinks if gland removed as whole, traction on side first freed tends to pull second side away from trachea, and starts dangerous bleeding in tracheal borders (see later). Does not tie inferior thyroid artery, unless bleeding persists after he has removed in the ordinary way.

After removal, hæmostasis is really complete. He then sutures cut edge of capsule to fascia over trachea, so that raw surface is entirely opposed to trachea. Many small stitches. Where he has removed one side, leaving the other for second stage, he also sutures sternothyroid edge to trachea medial to thyroid stump, to cut off that side from adhesions to the remnant of the first lobe.

Muscles are carefully sutured :—

1. Mattress each side, over Ochsners.
2. Second stitch lateral to this to finish repair.
3. Mid-line by interrupted stitches.
4. Sternomastoid overlapped, by further interrupted stitches.

No drainage.

Skin closed by Michels put in by nurse while assistant holds skin. No scratches. No suture of platysma. Clips half out second, half fourth day.

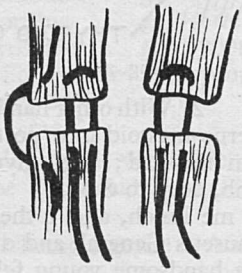

Fig. 7.

THYROID POINTS EMERGING IN CHATS

1. *Intrathoracic goitres.*

They have had about 1,500 extending to aortic arch, about 360 extending behind it, about half a dozen within two ribs of diaphragm.

These are mostly adenomas, with semi-soft centres. However big they can nearly always be got without division of the sternum. This has been needed in only three.

1. Get vessels ligatured, and top of thoracic extension freed all round.
2. Get top fixed with row of double hooks.
3. Pull on these, and free round with finger ; it will come as you dissect.
4. If in real difficulty, incise the capsule and draw up the contents with the finger.

These tumours start in front of the recurrent laryngeal, push it back, and very rarely distort it. Parathyroid adenomas, on the contrary, may angulate the nerve.

The cavity left is large, surrounded by negative pressure, often with very thickened pleura. Drain well (if oozing with gauze pack), and till no further discharge. In some, five to six weeks is needed.

2. *Complications.*

Tetany.—About 20 in 16,000 to 17,000 goitre operations. Only six of these permanent.

Recurrent laryngeal.—Two in same number.

Post-operative bleeding.—about 3 in 1,000.

3. *Recurrent laryngeal paralysis.*

Point of danger is not near lower pole, but where it tends to come forward with upper branch of inferior thyroid artery that goes to upper parathyroid (see Fig.). Here it is often injured after removal of lobe, when an artery spouts between stump and trachea, and man dives blindly for it. At lower border of thyroid cartilage it dives under inferior constrictor, and is safe.

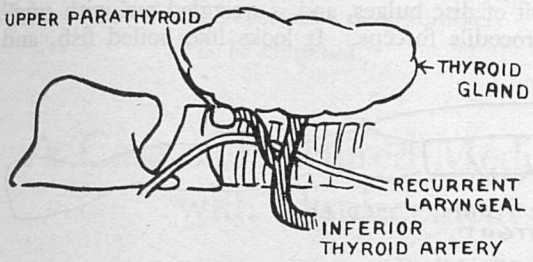

Fig. 8.

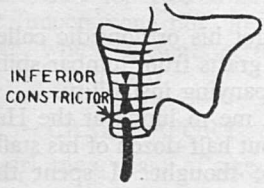

Fig. 9.

If injured :—

a. One always hopes for recovery, and cannot suggest rather futile operations.

b. On other hand, nerve suture only worth trying in first three months, after this arytenoids get fixed. Only nerve worth trying is phrenic.

c. Dr. Hoover (*Arch. Otol. Rhin. and Laryn.*, 1932) has operation, submucous resection of one cord by laryngo fissure, that has succeeded in eight or nine cases of double abductor paralysis. Gives good airway at expense of husky voice.

4. *Three chief factors in bad prognosis.*—

(*a*) Age.
(*b*) Weight loss.
(*c*) Length of disease.

He thinks thyrotoxicity chiefly disturbs liver function which is accompanied by gastro-intestinal disturbance, and in the worst cases vomiting, and improved by fluids and glucose.

5. *Iodine.*

They give 50 m. Lugol intravenously in saline after operation in bad Graves. Then by mouth. They are doing a lot of research on iodine metabolism.

On Tuesday, Lahey did a gall bladder. Anæsthetic spinal, as for nearly all abdominal operations.

Incision.—Right paramedian, rectus splitting, done by assistants. (They do a lot of cutting through the rectus; I asked Cattell why, and gathered he is not quite happy about it, but it is easy and works. He says they get 8 per cent. of incisional herniæ in gall bladders.)

He does not use a bridge. (They apparently found that this always led to a fall in blood pressure.) Retraction and exposure marvellous, partly good relaxation, partly the four assistants (at one time five retractors were in in different planes), partly the wide selection of retractors of every size and shape which are always available and whose use is made possible by their superperfect theatre nurse (about fifty operations a week for ten years). With this excellent relaxation he pulled out liver, and put two forceps on gall bladder, one near fundus, one near Hartmann's pouch. Pulling on these, the gall bladder stood right away from liver, stretched straight. He ran a knife along side, and pushed back peritoneal sleeve with small wipes on curved forceps and the whole thing was clear.

Fig. 10.

Fig. 11.

He picked up and ligatured the cystic artery before the duct, then divided and ligatured duct. His gall-bladder forceps are perfect, a little longer in snout, a little more right-angled, much finer than Moynihan's, about same length. I must get some.

The gall bladder had many stones. He decided to explore common duct, and before cutting it he packed a swab into the foramen of Winslow. He found nothing in duct, but dilated bile papilla with a series of dilators up to 9 mm. He put a T-tube (very short T) into common bile duct and sutured very carefully round it, with four or five stitches, and extra tags of fat. Tube and a cigarette drain to foramen of Winslow brought out

Fig. 12.

through top of incision. They use cigarette drains a lot. Sister hands them like this (Fig. 14); they cut the gauze part as short as they like.

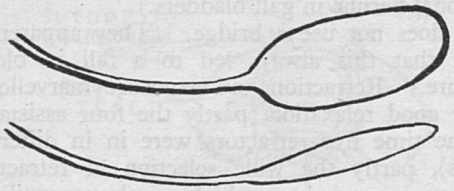

Fig. 13.

spines of L. 4 and 5, the lamina of 4 and most of that of 5. He bares the dura, and packs wool rolls round it. With these and suction there is no blood of any kind. He then opens the dura—in any case to let out the lipiodol. In one, the first, he attacked the swelling trans-durally; in the second, after looking inside, he cut one nerve and went to the outer side of the dura. After cutting the posterior longitudinal ligament the bit of disc bulges, and is wriggled out with small crocodile forceps. It looks like boiled fish, and

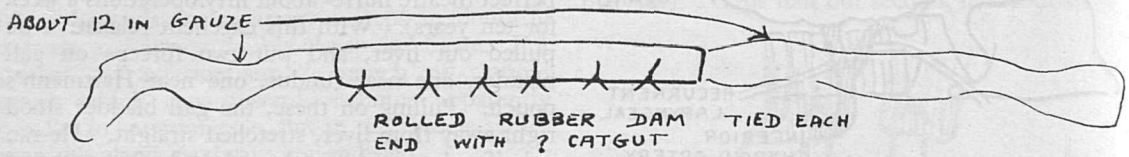

Fig. 14.

Chats on gall bladder by F. Lahey.

Up to 1916.—

619 operations on biliary apparatus in clinic.
Common duct opened in 15 per cent.
Stones found in common bile duct in 8 per cent.
Mortality, 5 per cent.

November, 1937.—

2,000 operations.
Common bile duct opened in 40 per cent.
Stones found in 18 per cent.
Mortality, 1 per cent.

In 39 per cent. of cases where common bile duct stones were found, there was no jaundice at any time. Thus opening common bile duct lowers rather than increases the mortality.

The two herniæ of nucleus pulposus operated upon by Poppen deserve mention. Poppen is tall, big, an ex-baseball hero.

Both for sciatica. Lesion suspected when sciatica persists, when X-ray entirely negative, and when some neurological changes, such as par- or anæsthesia or altered reflex exist. Proved by intrathecal lipiodol—needs 5 c.c., as smaller lots show nothing. The films were striking (from memory). In the second there was osteoarthritis with lipping as well. Hernia was of the L. 4-5 disc.

Operation.—Beautiful laminectomy, really subperiosteal and quite bloodless. He uses a fine sucker, wired for diathermy, so that if a bleeder in muscle persists he can cook it. He removes is quite loose in a smooth cavity—a sort of sequestered portion.

In one he got his orthopædic colleague to put Albee-Hibbs' grafts from lumbar spine to sacrum for an accompanying instability.

Lahey took me to lunch at the Harvard Club, and asked about half-dozen of his staff to meet me—a very nice thought. I spent the afternoon watching baseball (Red Sox *v.* Detroit) with Stephen Jones, massage with Miss Smith 4.30, a short chat with Lahey at the Clinic, dinner at a "Help Yourself" joint (45 cents), and back to write notes till midnight.

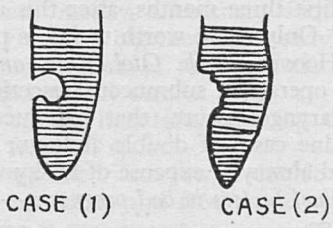

Fig. 15.

Chat on helium by Dr. Eversole, U.H.

Helium is one-seventh the weight of air, one-eighth that of oxygen. A mixture of 20 per cent. oxygen in helium is physiologically equivalent to air, but one-third of its weight. It calls for less work on whole respiratory mechanism. Being used for treatment of asthma.

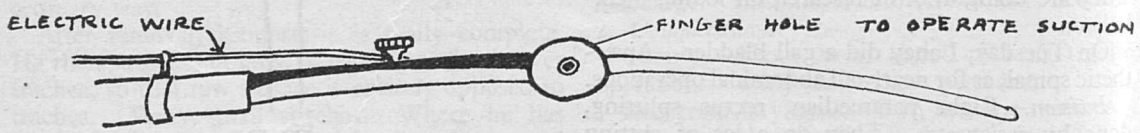

Fig. 16.

Eversole finds it useful (1) to relieve " croaking " when obstructed airways and other obvious causes are not responsible.

(2) For anæsthesia when there is tracheal œdema, such as second stage operation, or emergencies for bleeding after thyroidectomy. The effect is wholly mechanical, not chemical, like diluting treacle with water. (To illustrate this, Dr. Eversole filled lungs with a helium mixture and spoke in a little squeaky voice. With Argon (heavy) the effect is reversed, a deep rumble.)

(To be continued.)

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A Case of Fractured Medial Epicondyle of the Humerus with Displacement Inside the Elbow Joint

By J. H. Mayer, Esq., F.R.C.S.

THE case here reported is an example of a rather uncommon but most interesting fracture, which presents certain difficulties in diagnosis and treatment.

CASE REPORT

I. C., a girl nine years of age, came to the Fracture Clinic with a clear history of an abduction injury to her right elbow, having fallen on the inner border of her forearm

The joint was distended with effusion, all movements were greatly limited, and she was very tender over the medial epicondyle of the humerus. The X-ray (Fig. 1) showed the medial

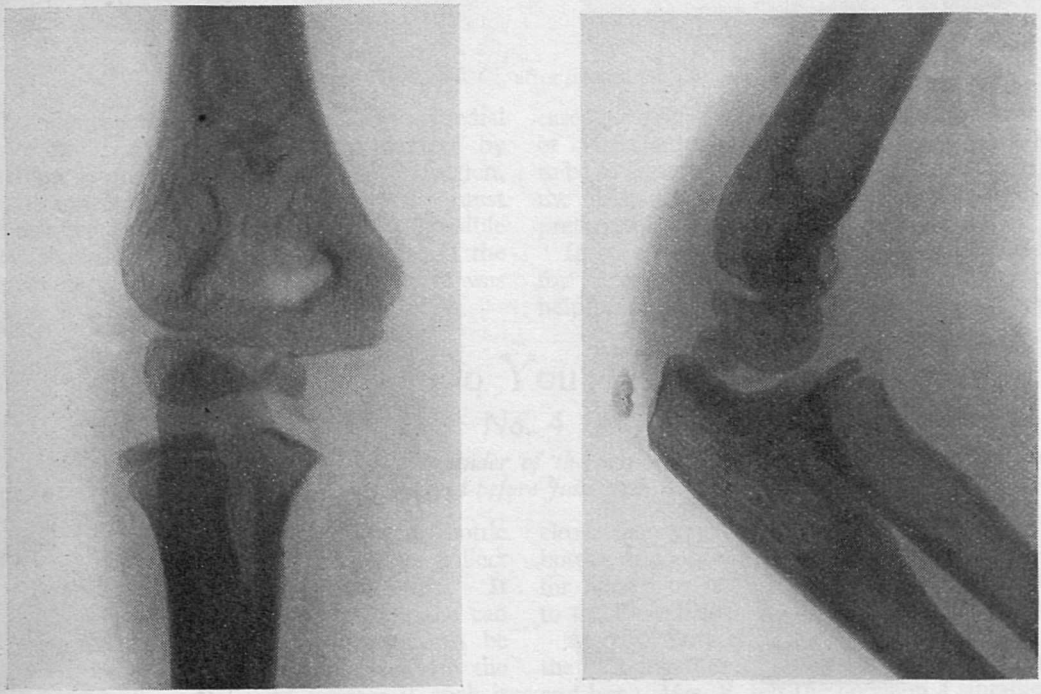

Fig. 1.—I. C., before operation.

epicondyle detached from its normal situation and lying inside the joint, between humerus and ulna. This piece of bone might be mistaken for the ossifying trochlea of the humerus, but such a

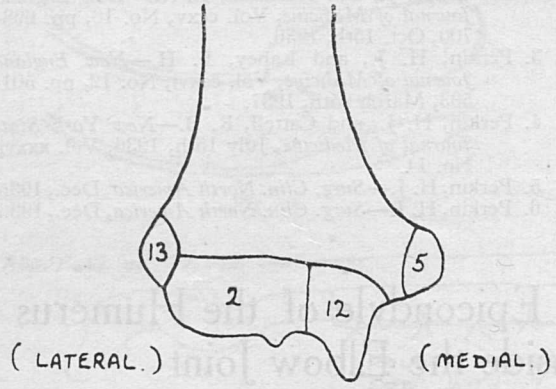

Fig. 2.
Diagram showing approximate times of appearance of centres of ossification for lower end of humerus (in years).

mistake is avoided by noting the absence of the epicondyle from its normal position and by the fact that at this age the trochlea has not started to ossify (see Fig. 2). In the X-ray of a normal elbow at this age, shown in Fig. 3, the closer contact between the articulating surfaces will be noted.

The child was admitted and Mr. Lambrinudi operated; the medial epicondyle was found, as expected, inside the joint with the common flexor muscle origin attached to it. It was levered out of the joint and refixed in its normal position by a short ivory peg. The X-ray appearances after operation are shown in Fig. 4, the part of the ivory peg projecting beyond the bone being buried in the common flexor muscle origin.

After a month's immobilisation, active movements were encouraged, and the full range of movement was regained within eleven weeks of the operation. A transient diminution of sensation over the little finger only and a suspicion of wasting of the hypothenar muscles occurred, but these recovered rapidly and completely.

DISCUSSION

This fracture is caused by a forcible abduction at the elbow, the epicondyle being avulsed and sucked into the joint space as the ulna is momentarily separated from the humerus. The common flexor muscle origin and the medial ligament of the joint remain attached and follow the epicondyle into the joint.

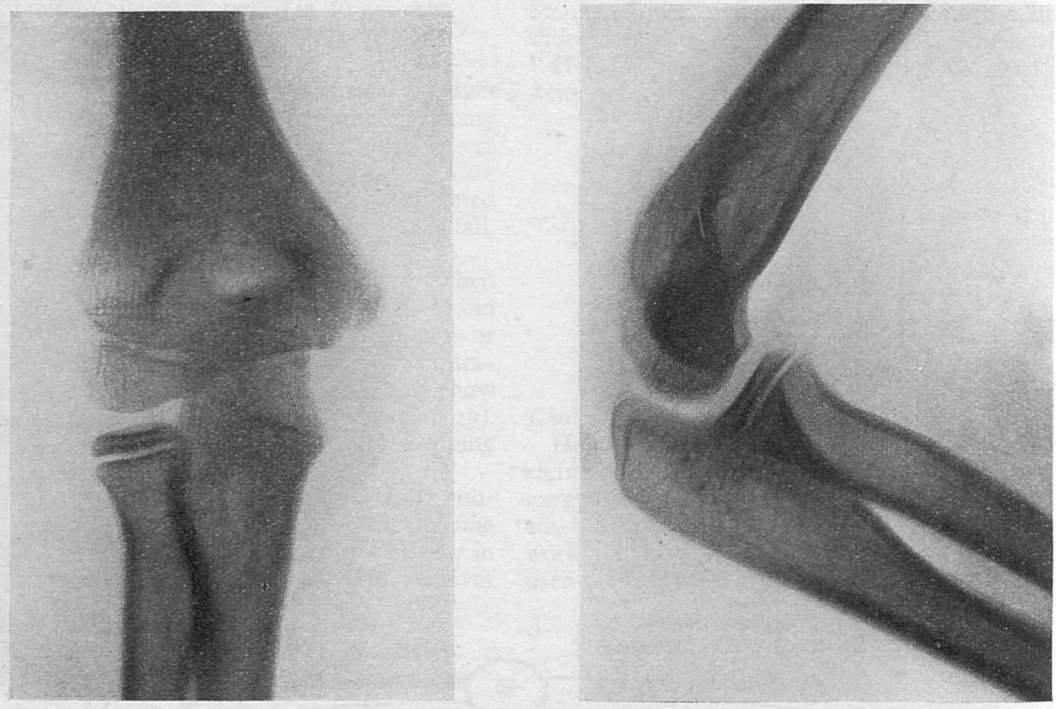

Fig. 3.—Normal elbow-joint, age nine years.

Any degree of displacement may be found, from slight separation of the epicondyle with simple downward displacement, to incarceration of the epicondyle inside the joint, as in the case here reported.

When the epicondyle is impacted inside the joint, any attempt at closed reduction must endanger the ulnar nerve still further, for the joint must be forcibly abducted again in order to disimpact the fracture-dislocation. While successful

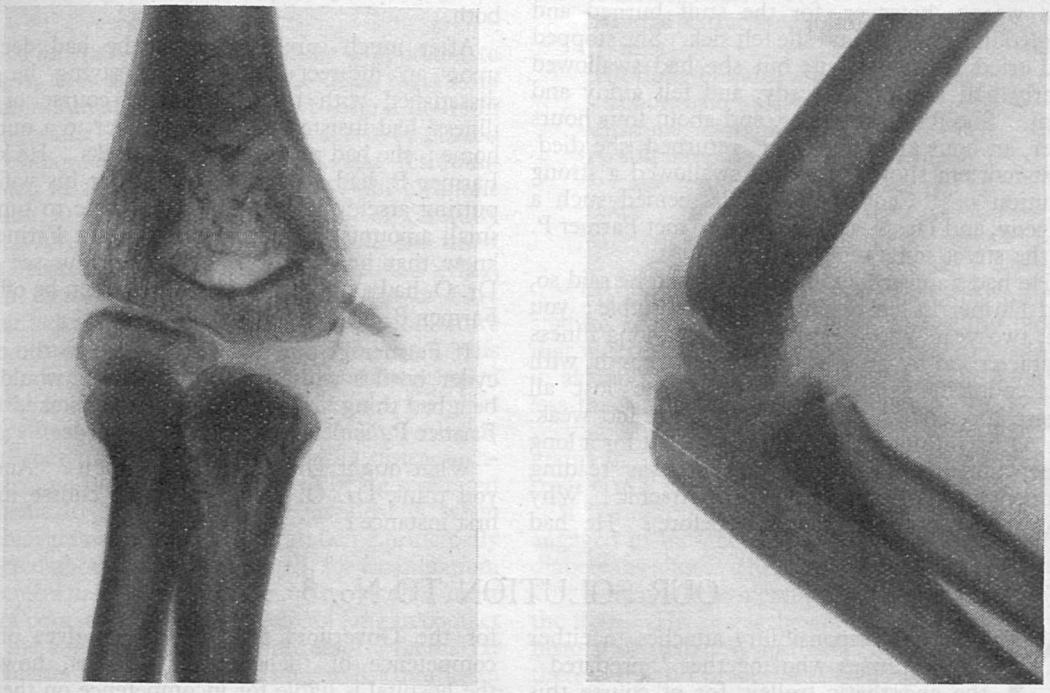

Fig. 4.—I. C., after operation.

The ulnar nerve, descending behind the medial part of the joint, is very liable to damage by stretching as the joint is forced into abduction, and the transient nerve lesion in this case must have resulted from this cause. It was impossible to test sensation before operation because of the patient's nervousness, but the greatest care was taken to avoid nerve damage at the operation.

cases have occasionally been reported, the chances of closed reduction in this case were considered to be so remote and the danger of further damaging the ulnar nerve so great that open reduction was preferred.

In conclusion, I wish to thank Mr. Lambrinudi for permission to publish this case and for his helpful advice in the preparation of this report.

What Do You Think ?

No. 4

(A Prize of one guinea will be paid to the sender of the best solution, as judged by the Editor, and received before June 27th.)

FARMER P. took an empty cyder bottle from the larder one afternoon to collect some weed-killer " for his front path." It was labelled " Cooper's Weedicide " on the can —" extra strong," an arsenical product to be diluted before use ; some was poured into the dark brown cyder bottle, and Farmer P. took it home, putting it on a shelf in the larder rather closer than you or I might think wise to the few bottles of cool Symon's cyder which Mrs. P. kept for herself or her own friends. He went down to the Plough for a few beers and some darts.

At 7.30, Mrs. P. returned with a friend, and they sat together on the sofa feeling rather tired and hot. Mrs. P. felt the occasion a suitable one for a cool drink—would Mrs. T. like a little cyder ?

Mrs. T. preferred not, however, saying it was getting dark and she ought to be on her way, so she said goodbye. Mrs. P. still felt rather dry, so she opened the larder door, felt inside for one of her cyders, unscrewed the stopper, and started to swig off a long draught. Something was wrong, however, for the stuff burned and tingled in her throat and she felt sick. She stopped and tried to spit it out, but she had swallowed nearly half a cupful already, and felt giddy and faint. She fell to the floor, and about four hours later, an hour after Farmer P. returned, she died. Post-mortem showed she had swallowed a strong solution of "Cooper's." It all seemed such a tragedy, and Dr. O. said so when he met Farmer P. in the street some ten days later.

He had a queer look in his eye when he said so, and Farmer P. felt distinctly uncomfortable; you see, two years ago Mrs. P. had had a long illness characterised by progressive loss of strength, with unaccountable vomiting attacks; she lost all desire for food and became very thin and weak. Dr. O. could not make head or tail of it for a long time, but one day something he was reading suddenly put it into his head. Arsenic! Why had it not crossed his mind before? He had heard village tattle about the P.'s not being on the best of terms.

He had taken the precaution of asking her for a routine sample of urine and stool for test, but had sent it away to London for analysis, and, sure enough, the report had said there was arsenic in both.

After much careful thought, he had decided upon an indirect attack, and, saying he was dissatisfied with the nature and course of her illness, had insisted on removing her to a nursing home; she had recovered in six weeks. He knew Farmer P. had attempted to murder his wife by putting arsenic in her food from time to time in small amounts, and he rather thought Farmer P. knew that he (Dr. O.) knew. So you see why Dr. O. had a queer look in his eye when he offered Farmer P. his sympathy.

If Farmer P. put that bottle close to the other cyder bottles with the feeling that it would not be a bad thing if his wife "made a mistake," then Farmer P. could be convicted of murder.

What ought Dr. O. to do about it? And do you think Dr. O. took the wrong course in the first instance?

OUR SOLUTION TO No. 3

No serious responsibility attaches to either of the nurses who together "prepared" the anæsthetic trolley, for of course this special apparatus was to be used not by them but by a person accredited with a certain skill—technically an expert—in the use of the apparatus, and who would himself be responsible for its good order. This was not a case of liability for a nursing duty. So responsibility should be borne either by the house officer himself or by the hospital which employed his services.

Now a hospital which invites the public to make use of its facilities for treatment undertakes a definite responsibility in law; it offers them the services of a staff of experts, whether nurses, house officers, surgeons or anæsthetists, and it is for the Governors to assure themselves of the competence of their staff. Whereas, however, the hospital is liable for incompetence on the part of its staff, this liability ceases when one of these persons, of whose competence there is no question, acts negligently towards a patient in some matter of professional care or skill, or uses apparatus or appliances in a negligent manner, and resulting in damage. The house officer would, then, have to pay the damages assessed, and he would be fortunate to have vested his interests in a Defence or Protection Society generous enough to assume full liability for such gross negligence as he displayed. In actual fact, Mr. X's error on this occasion was regarded by his Society as a mistake "not to be repeated," but for which they would this time assume civil liability—so they paid.

"Sugar in the Blood"

(1838)

It is always interesting and often informative to "browse" leisurely through old medical literature.

On page 311, Volume I, of the *Lancet* for November 17th, 1838, a brief article bearing the above title says:—

"The question of the presence of sugar in the blood of diabetic persons has long been a matter of dispute among chemists. It appears certain, however, that Ambrosiani extracted saccharine

matter in a state of purity from the serum of diabetic blood, while the recent experiments of Mr. McGrigor lead to the idea that it exists in several of the excretions also. The following process is described by Dr. G. O. Rees in the last number of *Guy's Hospital Reports* :—

" ' The mass of blood is to be evaporated to dryness, over a water bath ; the dried mass is to be comminuted, and digested for several hours in boiling water : the aqueous solution is to be filtered off, evaporated to dryness, and the residuum digested in alcohol of sp. gr. 0.825 ; the alcoholic solution so formed is to be filtered, or carefully poured off, evaporated to dryness, and the dried mass treated several times with rectified ether, which dissolves out urea, and also some fatty matter ; leaving behind the sugar, in admixture with osmazome and chloride of sodium : this mass on being dissolved in alcohol, and the solution allowed to evaporate spontaneously in a flat glass dish, affords mixed crystals of alkaline chloride and diabetic sugar ; which are easily distinguishable from each other and allow of being separated mechanically by shaking them in alcohol, when the chloride sinks ; and the sugar, being principally collected above, may be removed, for examination, by careful use of the spatula : the alcohol must not, of course, be allowed to remain long in contact with the crystals, as it would re-dissolve them. It is a matter of surprise, that sugar has not been long ago detected in the blood of diabetic patients, though not separated from it ; for the alcoholic extract of the serum, when mixed with water, will, after a few days, give off carbonic acid ; which, in addition to the sweetish taste and syrupy smell of the evaporated alcoholic extract, is a sufficient evidence of the presence of sugar. The following is an analysis of 1,000 grains of diabetic serum :—

" ' Water	908.5
Albumen (yielding traces of phosphate of lime and oxide of iron, on incineration)	80.35
Fatty matters	0.95
Diabetic sugar	1.80
Animal extractive, soluble in alcohol, urea	2.20
Alkaline chloride, with traces of phosphate	4.40
Alkaline carbonate and trace of sulphate, the results of incineration	
Loss	1.00
	1,000.00

" ' It will be observed that on comparing this analysis with that of the serum of healthy blood, that we have here a great excess of matters soluble in alcohol, while the albuminate of soda is rather less than in health. The alkaline salts are also in very small proportion, being only 4.40 gr. in 1,000 grains of serum, while in health they amount to from 7 to 8 grains per 1,000.' "

It is interesting to find that a Guy's man was engaged in bio-chemical research on the blood in diabetes as long as a hundred years ago. Many old Guy's men still remember Pavy and saw him in the flesh. His researches marked an epoch in the history of diabetes, and even in the early 1900's there were still practitioners who preferred Pavy's solution to Fehling, before Benedict had been heard of.

Readers who feel disposed to criticise Dr. Rees's account of his method of analysis for its punctuation, are earnestly requested not to remark that his diabetic researches had made him " commatose." It has been said already, and the offender has been suitably dealt with.

Reviews

Diets and Recipes and the Treatment of Diabetes and Obesity. By Dr. E. P. POULTON, D.M., F.R.C.P. Published by the Oxford University Press. Pp. 118. *Price 7s. 6d.*

THE greater part of the text of this book deals fully with diabetes, its complications and treatment ; and to aid the accurate assessment of food requirements necessary in this and in the treatment of obesity, a series of useful monograms and tables are inserted.

The author is a strong advocate of the " high carbohydrate " diet ; in other words he allows the diabetic to eat the same food as normal people, but of course in measured quantities. He believes that many of the complications, such as arteriosclerosis, formerly thought to be due to diabetes were really due to the high fat diet one time universal. He also stresses the importance of a determination of the renal threshold in every case of diabetes ; without such a determination, stabilisation of the patient by reducing the urine sugar to zero may be merely guesswork.

Once the caloric requirements of a patient have been found, they have to be translated into actual amounts of food. To do this the author has adopted a scheme of rations ; each carbohydrate ration is 20 grams, each fat ration, 10 grams. Tables are contained in the Appendix to the book

by which the actual amount of foodstuff which contains a carbohydrate or fat ration may be found.

Diet plotting is then easy. Thus an 1,800 caloric 2 : 1 diet requires 8½ fat rations, 8½ carbohydrate rations through the day. These may be suitably distributed between the various meals, and the actual amount of foods found directly from the table. To aid the visual assessment, pictures showing the sizes of rations of common food articles are also included.

Mrs. Hawkey has collaborated with the author to produce no less than 211 recipes of made-up dishes. With the aid of these and the other food tables the diabetic has virtually unlimited choice with which to tickle his palate. In fact, the sole criticism which may be laid against this book is that it tends to place such an unfortunate individual in the position of Buridan's ass, and he might well starve through the inability to choose from such a monumental fare.

This book can be confidently recommended to all those who have to deal with the dietary treatment of diabetics and other metabolic disorders.

W. W. G.

Correspondence

An Appreciation

To the Editor of the GAZETTE

SIR,—May I ask a small space in your *Gazette* for a few words of appreciation for the pioneer in deep therapy work at Guy's Hospital, Dr. W. Langwin Watt?

Dr. Watt came to Guy's in 1923, having done extensive work in deep therapy and electro-therapeutic work before the War. He studied first at the London Hospital under Sir Robert Wood, then at Munich, Vienna, Erlanger and Winnipeg General Hospital, where he was in charge of the X-Ray and Electro-therapeutic Department.

When War broke out he came over with the 1st Canadian Highland Brigade, serving throughout the War with his Field Ambulance, on the Staff as Colonel and decorated with the Order of St. Michael and St. George. He started at Guy's in a modest way with his own machine in a converted top-story floor of the Medical Block; as the work grew this machine was bought by the Hospital Committee, a second was given by Mr. Sheppard, one of the Governors, and a third added by the Hospital to cope with the increasing number of patients who came for treatment for all kinds of malignant growths—Hodgkin's disease, the leukæmias, arthritis, etc.

Of the growth of the Department, the long hours of work put in by Dr. Watt, and the stream of patients brought to the Hospital from overseas and all parts, the records of the Department will testify.

With these few words of appreciation and praise of one who brought nothing but good to Guy's, calling forth the love and gratitude of innumerable poor patients to whom he gave hope, sympathy and his great skill in fullest measure, I will close.

Yours, etc.,

WINIFRED A. JOHNSON.

Bright Ward,
Guy's Hospital, S.E.1.

The Musical Society

To the Editor of the GAZETTE

SIR,—We have to thank you for referring to the Musical Society in your last "Passim," and we take this opportunity of reporting on its progress.

There was a better attendance at this year's Annual General Meeting, and the revival of interest shown there has already been reflected in the success of the Musical Evening given by the kindness of the Matron in the Nurses' Home on the 2nd of this month, when there was an attendance of nearly sixty. The programme included duets for two pianos, piano solos, orchestral and instrumental items, songs and recitation, and the evening ended triumphantly with a hearty round of community singing.

Rehearsals for next term's concert have now begun and are held at the following times :—

Choral Section (Men) : Thursdays at 5 p.m. in the Lower Massage Gymnasium.

Choral Section (Nurses) : By arrangement.

Full Choral and Orchestral Rehearsals (conducted by Miss Margaret Paterson, L.R.A.M.) every Thursday at 8 p.m. in the Nurses' Home.

The chief work that will be rehearsed in preparation for the concert in November is that old favourite, Edward German's "Merrie England"

(concert version). We feel sure that you will be glad to hear of this and will agree with us that it is a work most likely to attract both a good number of performers and a large audience.

The correspondence in the current number of *Bart.'s Gazette* contains a reference to our Musical Society, and sets it up as a standard at which all other hospital musical societies should aim. If we do not wish to be accused of existing on past glories, it is up to the present members of the Hospital to pull their weight and help us in every way they can towards re-establishing Guy's Hospital Musical and Operatic as a society of repute in the University.

Yours, etc.,
B. KUSTOW,
E. W. BAXTER,
Hon. Secs., G.H.M. & O.S.

Guy's Hospital,
S.E.1.

Sport

Cricket

SECOND ROUND OF THE CUP

GUY'S v. BART.'S

GUY'S were blessed with fair weather on Wednesday, June 8th, but no luck with the toss. Miller and Heyland came out to face Knight and Coffey, and it was a fine start when Coffey made the ball move about in the air to bowl Miller at 13. This form was maintained for five wickets were down for 65. Maidlow, the captain, now joined his secretary and proceeded to add 70 runs by good open cricket. O'Gorman had started well by getting Grant caught and bowled with his second ball, but North particularly was very severe on him. Two overs before lunch Morey broke the partnership when he bowled North with a beautiful length leg-break, and then in the next over Maidlow was brilliantly run out by Chase, who came very fast from cover and threw the wicket down. 139 for 6 at lunch left Guy's on top once more. Knight again bowled well after lunch, and the remaining four wickets mustered 39 runs before Cochrane was bowled, to leave Bart.'s with 178.

On such a perfect wicket as this, Guy's spectators, of whom Mr. Busteed would be glad to know there were quite nine, were quite confident. By way of digression, we were particularly sorry not to see Mr. Busteed, who was prevented by the weather earlier in the day, for the presence of a man who was once mainly responsible for the dismissal of King's for three runs in a Cup-tie must be an inspiration to any side.

When we opened, Hughes elected to chase an outswinger, to be caught at the wicket, while the new ball was too much for a man obviously short of match practice. This was not disaster, but something curiously akin to it, but confidence once more began to return as Chase and Morey played the bowling with delightful ease, the former's timing being particularly impressive.

Tea was taken with the score at 77 for 2; Chase, not out, 45; Morey, not out, 27. By contrast, Morey was unable to settle down after tea and was bowled after adding only two to his score. Birks stayed while the side prepared to be carried by Chase, a task of which he seemed amply capable. But Birks was surprisingly bowled, playing a defensive forward stroke. O'Gorman did not really shape, and Foster received "one out of the bag." 140 for 6 and 39 to win, with Chase now being compelled to corner the bowling and force the pace. And then, disaster, for Chase, when six short of his century, shaped to hook, only to pull the ball into his wicket. Even the tenseness of the situation could not prevent the realisation that this was far and away the most delightful innings seen on the ground for a period of years.

There were twenty-two runs to win and three wickets to fall. But at 163, Thomas was bowled neck and crop, playing a shot not in his best style. Coffey smote valiantly, only to have his off peg knocked back after making a valuable 12. Knight strode purposely to the wicket—six runs to win and the last man in. With absolute correctness he played the over, and there were visions of a victory gained run by run, but, alas, off Cochrane's first ball McClintock elected to catch four of the necessary runs at one fell blow. The ball sailed dismally toward cover, where Bates threw himself forward to make a fine catch, and Bart.'s had triumphed by five runs, and Guy's, with their best side for several years, were out of the Cup at the first time of asking.

Bart.'s

J. E. Miller, b. Coffey	2
R. Heyland, b. Knight	22
J. T. Robinson, c. Morey, b. Knight	9
R. N. Grant, c and b. O'Gorman	13
J. North, b. Morey	47
W. N. Maidlow, run out	39

C. T. A. James, c. Hughes, b. McClintock	18
M. Bates, b. Knight	0
C. G. Nicholson, l.b.w., b. Knight	20
J. Craig-Cochrane, b. McClintock	1
B. G. Gretten-Watson, not out	0
Extras	7
Total	178

Knight, 4 for 58; Coffey, 1 for 34; McClintock, 2 for 33; O'Gorman, 1 for 33; Morey, 1 for 13.

Guy's

A. C. C. Hughes, c. North, b. Grant	1
J. A. L. Leeming, l.b.w., b. Nicholson	4
G. H. G. Chase, b. Cochrane	94
L. G. Morey, b. Cochrane	29
P. H. Birks, b. James	12
G. O'Gorman, l.b.w., b. Nicholson	5
H. D. Foster, b. Cochrane	4
H. A. Thomas, b. Cochrane	2
C. L. T. McClintock, c. Bates, b. Cochrane	8
S. A. Coffey, b. Nicholson	12
J. H. Knight, not out	0
Extras	2
Total	173

Grant, 1 for 21; Nicholson, 3 for 54; Cochrane, 5 for 63; Watson, 0 for 10; Robinson, 0 for 5; James, 1 for 16.

The Boat Club

THE Inter-Hospitals' Regatta was held at Putney on Wednesday, May 25th, and resulted in Guy's obtaining four first and two second places out of the seven races—a most satisfactory result.

The weather was not all it might have been, one or two light showers being experienced during the afternoon. However, the water was particularly good and thus made splendid rowing conditions.

Senior Eights

The crew consisted of:—

E. R. Roseveare	bow
P. C. Campion	2
G. Pinder	3
G. S. Wigley	4
J. H. Rake	5
D. W. Burnford	6
P. A. Lane-Roberts	7
J. Henry	stroke
J. C. Ritchie	cox

This race resulted in a win for Guy's by about 3½ lengths.

Guy's had the Surrey station with Mary's on the Middlesex and St. Thomas's in the middle. From a good start Guy's began at once to draw away and took the lead. After a "ten" had been called for the lead was increased till at the mile-post clear water separated Guy's from St. Thomas's with St. Mary's a length behind St. Thomas's. From here on to the finish Guy's continued steadily to increase their lead, finishing easy winners.

Clinker Eights

The crew were:—

P. A. Peters	bow
P. N. Cardew	2
C. Wilson	3
C. N. Eastes	4
M. Barber	5
E. D. Whiteley	6
A. Bloom	7
F. A. Gresham	stroke
J. C. Ritchie	cox

Guy's again had the Surrey station with St. Thomas's on the Middlesex.

St. Thomas's entered a strong crew in this event and our chances were not considered to be very bright. However, from the start Guy's gradually crept up to half a length lead when the oars of the crews came into collision and the umpire signalled to stop. A fresh start was then made with Guy's one-third of a length up. From this fresh start Guy's again increased the lead gradually, to finish with two lengths to spare.

Light Fours

Guy's had the centre station with St. Thomas's on Surrey and London on Middlesex. From the start, Guy's and London drew away and St. Thomas's soon were a length down. London converged into Guy's water and the blades of the two crews clashed, but neither crew were severely handicapped. The umpire warned London, who were again converging on to the centre station. The crews were rowing level when London clashed again; Guy's extricated themselves first and rowed past the post two lengths ahead. London were disqualified.

The crew were:—G. S. Wigley (bow), steers; J. Henry; P. A. Lane-Roberts; D. W. Burnford (stroke).

Clinker Fours

The crew consisted of M. Barber (bow), E. D. Whiteley (2), A. Bloom (3), F. A. Gresham (stroke), and J. C. Ritchie (cox).

Guy's had the Middlesex station with St. Thomas's on the Surrey and Westminster in the middle.

Guy's took the lead from the start and were held for a short distance by Westminster, who then fell back half a length. This position was kept for about half the distance, when Guy's gradually drew away to win easily from St. Thomas's, who passed Westminster to row into second place.

Junior Sculls

In this event Guy's were represented by F. M. Hayes, who rowed a very good race, but was beaten for first place by a small margin.

Rugger Fours

The Guy's IV were amazed at the length of the course on arrival at the start, but after great persuasion and bribery the crew, including No. 2, started. After fifteen strokes, three of the crews converged, and Guy's retired severely damaged morally and physically. They paddled home in their own time. St. Mary's had already won.

The crew were :—Baxter (bow); Fletcher (2); Spencer-Smith (3); Lane-Roberts (stroke), and Ritchie (cox).

Pairs

Guy's met St. Thomas's in the Final. The latter crew, who were better together, gained a lead at the start and, although Guy's made an effort at the end, St. Thomas's won by one length.

The crew were :—P. A. Lane-Roberts (bow), steers; D. W. Burnford (stroke).

Golf

ON Wednesday, May 18th, the Northwood Golf Club entertained us to a match, which they won rather handsomely by 4½ matches to 1½. The weather was very indifferent, and so was most of our golf, but nevertheless a most enjoyable evening was had by all, and we look forward to getting our revenge next year.

Results were as follows :—

Guy's		*Northwood*	
T. N. Praat	0	S. A. Whitteridge (2/1)	1
J. C. Ritchie	0	K. M. Sturton (7/3)	1
S. A. Marsh	0	D. W. M'Kenzie (5/3)	1
P. Wilson (2/1)	1	B. E. Teussen	0
S. G. M'Callin	½	J. E. Elder	½
W. G. Cross	0	O. G. C. Drury (1 up)	1
Total	1½	Total	4½

ON Wednesday, June 1st, a match was played against Dr. Knott's team at Royal Wimbledon Golf Club. We are greatly indebted to Dr. Knott for this annual match, on what must be the best course round London, and, as usual, a great time was had by all, notwithstanding the evil weather and our rather heavy defeat.

Results were as follows :—

Guy's		*Dr. Knott's Team*	
T. N. Praat	0	Eric Pearse	1
J. C. Ritchie	½	H. A. Green	½
P. Wilson	1	N. C. Carver	0
S. A. Marsh	1	Brig.-Gen. A. C. Hubback	0
S. G. M'Callin	0	V. Bartlett	1
F. R. Buckler	0	Dr. S. Rose	1
W. B. Sanders	0	R. V. Goodhew	1
J. C. Brick Turner	0	H. H. Hern	1
Total	2½	Total	5½

Four-ball matches were played after tea and resulted as follows :—

Guy's		*Dr. Knott's Team*	
Ritchie and Praat	0	Pearse and Hearn	1
Sanders and B. Turner	0	Goodhew and Hern	1
Buckler and M'Callin	1	Dr. Knott and Wilson	0
Total	1	Total	2

Lawn Tennis

SENIOR CUP

v. WESTMINSTER HOSPITAL

F. J. Piercey beat D. G. Freshwater, 6—4, 9—7.

H. R. S. Harley lost to G. B. Leyton, 3—6, 3—6.

R. S. Stevens beat D. F. Sutton, 6—2, 6—2.

N. A. Power beat S. E. White, 6—0, 6—0.

H. L. Joyce beat E. Gibbon, 6—1, 6—0.

D. L. Power beat L. Capwell, 6—0, 6—4.

F. J. Piercey and H. R. S. Harley—

Beat D. G. Freshwater and G. B. Leyton, 6—2, 1—6, 6—2.

R. S. Stevens and N. A. Power—
Beat D. F. Sutton and S. E. White, 6—2, 6—1.
Beat E. Gibbon and L. Capwell, 6—1, 6—0.
H. L. Joyce and D. L. Power—
Beat D. F. Sutton and S. E. White, 7—9, 6—3, 6—3.
Beat E. Gibbon and L. Capwell, 6—1, 6—0.

JUNIOR CUP

v. WESTMINSTER HOSPITAL

This match was played on Tuesday, May 24th. Guy's won 9—3. Three matches were unplayed.

Hospital Information, etc.

Notice

GUY'S HOSPITAL DENTAL SCHOOL

NORTH-WESTERN UNIVERSITY DENTAL SCHOOL, CHICAGO, U.S.A., SCHOLARSHIP

A Scholarship is offered to a graduate of Guy's Hospital Dental School, on the nomination of the Dental Council, at the North-Western University Dental School, Chicago, as from September 1st, 1938. Details of the Scholarship may be obtained from the Medical School Office.

Applications for nominations should be lodged with the Dean, Guy's Hospital Dental School, London Bridge, S.E.1, not later than June 30th, 1938.

T. J. EVANS,
Dean.

Pass List

UNIVERSITY OF LONDON.
THIRD (M.B., B.S.) EXAMINATION.

May, 1938.

Pass.

R. V. Coxon
P. G. Epps
M. A. Imray
B. G. A. Lilwall
F. L. E. Musgrove
W. M. Philip
S. H. Raza
R. Rhydwen
I. E. J. Thomas
A. D. Willis

GROUP I.

W. E. W. Bridger
J. C. A. L. Colenbrander
A. P. Dale-Bussell
A. M. Edwards
W. Fine
H. Foster
S. Garnjana-Goonchorn
G. N. L. Godber
I. J. Mathias
K. G. Pascall
C. J. Stewart

GROUP II.

D. A. Skan.

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.

May, 1938.

Surgery.

*A. Backman
R. M. Corker
*T. E. Ooi

Medicine.
*T. E. Ooi.

Forensic Medicine.
*T. E. Ooi.

Midwifery.
R. M. Corker
C. R. Morgan

* Have now completed the examination.

Papers by Guy's Men

Poulton E. P., and Watt, W. L. Treatment of exophthalmic goitre by deep-X-rays. *Clin. J.*, 1938, lxvii, 221.

Hurst, Sir Arthur. Diseases of the liver. *Practitioner*, 1938, cxl, 653.

Hampson, A. C. Jaundice in adults. *Ibid.*, 691.

Ogilvie, W. H. The changing ground of surgery. *Brit. Med. J.*, 1938, i, 1193.

Mollison, W. M. Fracture of nasal bones and epistaxis. *Ibid.*, 1218.

Symmons, J. A case of horizontal impaction of mandibular third and fourth molars. *Brit. Dent. J.*, 1938, lxiv, 588.

Harris, T. A. B. A drip-feed for divinyl ether. *Lancet*, 1938, i, 1338.

Giesen, J. E., and Another. Treatment of placenta prævia: Review of 286 cases. *Brit. Med. J.*, 1938, i, 1258.

Smith, H. Bryan. Partial denture design. *Brit. Dent. Jour.*, June 1st, 1938.

Appointments

R. M. Kark, appointed Research Fellow in Medicine, Harvard College, Cambridge, Mass., U.S.A.

Changes of Address

R. M. Kark, c/o Standard Bank of South Africa, 67, Wall Street, New York, until October 1st, 1938, and then c/o Thorndike Memorial Laboratory, Boston City Hospital, Boston, Mass., U.S.A.

Births

DE MIERRE.—On May 24th, 1938, to Joan (née Davey), wife of Jack de Mierre, L.D.S., R.C.S., 33, Foregate Street, Worcester—a son.

EVANS—On 3rd May, 1938, at Nuffield House, to Joyce, wife of Dr. Roy Evans, of Epping, Essex—a daughter.

EDS. {H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

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ON the afternoon of Thursday, June 23rd, the new Pathology Block was officially opened by the Earl of Athlone, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., F.R.S.

The Staff of the Hospital and Schools was present in full academic regalia, and afterwards there was held a Garden Party in the Hospital grounds, where the pupils of Miss Italia Conti gave an exhibition of fanciful dancing.

Since it is evidently incumbent upon us to provide for our readers who were unable to attend an adequate descriptive account of the proceedings on that afternoon, we feel we cannot do better than to reproduce in exact copy an account of a similar function written some twelve years ago by Mr. C. P. Blacker, an ex-editor of this journal. No additions and few modifications are ever found necessary to render it for all editors, past, present and future, the perfect archetype of graceful " rapportage."

To those of our readers who wish for prosaic detail and to those again who prefer the pictorial representation to the written word we would refer to the pages which follow. . . .

Fate, for once, was benign in providing fine, if sultry, weather. The Wards, the Massage Building and other departments were open to the inspection of an inquisitive congregation of visitors, among whom, after the speeches in the Physiological Theatre were over, there circulated, like revolving Heavenly Bodies, the greater part of the Visiting Staff of the Hospital in the full glory of their academic costumes. Wearing their peculiar headgears, they moved, like the stately warships of the Armada, over the tenuous grasses of the Park. As they proceeded from plot to plot (especially unenclosed for the occasion), their ample gowns billowed superbly around them in the sultry air, in folds of excruciating chromatic disharmony. Compared with these resplendent garments, the uniforms of the Band of Welsh Guards that played in the late afternoon presented themselves to the eye as colorifically commonplace.

It was indeed a gorgeous spectacle. Munificent teas were dispensed from different fountain heads, each of which was sampled in rotation by the majority of those present. A gaudy tent-shelter was provided for the band, which played light music to those who were not occupied with the dancing display.

Official proceedings began punctually at 2.45 p.m., when a procession of dazzling brilliancy slowly emerged from the Court House, and headed for the Physiological Theatre. In the transit, the processors amiably conversed together, as if unconscious of the prodigious effect they were creating among their staggered onlookers. There shortly followed a smaller procession, obviously centering round a figure in a black satin gown heavily embroidered with gold lace and gold facings. It was the Earl of Athlone, the guest of honour of the afternoon.

The Physiological Theatre was completely filled in all its ranges, and the audience showed a proper appreciation of the speeches.

The opening of a new Pathology Block does not, at the best of times, provide a generous theme for epigrammatic oratory. But, in spite of this capital drawback, the speeches were of a high order, and they are to be found reproduced elsewhere in this issue. . . .

The Opening of the New Pathological Building of the Medical School

By the Rt. Hon. the Earl of Athlone, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., D.S.O., F.R.S.

VISCOUNT NUFFIELD, on behalf of Viscount Goschen, who was suffering from laryngitis, said: On behalf of the Governors of the Hospital and School and all who are interested in Guy's, we offer a warm welcome to the Chancellor of the University for his graciousness in consenting to open the new Pathological Building, and take his presence here to-day as a proof of his interest in our Medical School, a part of the University of London for which he is doing so much valuable work.

The DEAN of the Medical School, Mr. T. J. EVANS, said: Chancellor, it is my privilege, on behalf of the Staff and students of this School, to echo the President's welcome to you on your first official visit to us, and to express to you our gratitude for the great favour you have bestowed on us this day. We feel that, by coming to open this latest extension of the School, you are giving your commendation to our attempt to increase the teaching and investigating strength of the great University of which you are the head.

The Teaching Hospitals of London grew out of small beginnings within houses built for the care and cure of a neighbouring population. In the London area that work is now being performed by some 250 hospitals, but the Teaching Hospitals have developed into something much greater and more far-reaching in their usefulness than was ever dreamt of by their pious founders: namely, the training ground for the medical service of a whole nation. You, sir, once proclaimed on behalf of your University that its primary duty is to serve the Empire. We here can say that we have accepted that duty, for to-day the small hospital founded by Thomas Guy in 1725 has sons in every corner of the King's Dominions.

It is therefore an appropriate moment, when not only the solvency but the very existence of the Teaching Hospitals is in imminent danger, to call our people's attention to the desperate efforts which these institutions are making to carry on their great work. It is one of the queerest anomalies of this British civilisation that the training of the most important and most devoted of its public services should be hampered at every stage by being committed to an existence of perpetual mendicancy. I hope, sir, that you will pardon my sounding this one sombre note on an occasion that should be one of felicitation of the accomplishment of an effort. It is an effort not only to bring to higher efficiency the mechanism for training physicians and surgeons, but to provide more modern and more abundant facilities for skilled researchers into the cause and control and cure of disease.

When the present Superintendent of the Hospital, under whose guidance to-day's new building was planned, spoke on a similar occasion in 1923, he stated that the building then opened by His Royal Highness the Prince of Wales was the completion of a scheme of rebuilding of the Medical School—and at that date the statement was true. The School had, in the preceding 25 years, spent £100,000 on its rebuilding, but now, after 14 years, it has again grown dissatisfied, this time with the means for teaching and conducting research in the domain of pathology, and the handsome block of eight floors which you, Chancellor, are about to open, represents the School's valiant effort to provide itself with an Institute of Pathology which should be as spacious and as up to date as any in the kingdom. Pathology is both the end of the medical student's preliminary training and the means he will later employ in the recognition and verification of disease. It is the bridge and middle way between his teaching in the School and the treatment of the ailing human frame in the wards of the Hospital. The School is to-day proud of the fact that it has severely over-strained its resources in order to consolidate an efficient relationship between itself and the hospital beds.

In addition to Pathology, the new block houses the departments of Bacteriology, Clinical Chemistry, Pharmacology and Physics. The first two are largely concerned with the routine work of the Hospital, and their rehousing will add greatly to the efficiency of clinical investigation and diagnosis. To bring about these improvements the School has expended the very large sum of over £85,000. The School has managed to provide £35,000 out of its own income, and £30,000 we have borrowed on easy terms from a very good friend of the Hospital and School; and £10,000 we owe to the munificence of the University of London, and at no time could it be more appropriate to express the School's gratitude to the University than on the occasion of a visit from its Chancellor. Now, sir, I have the great honour of asking you to declare the building open.

The EARL OF ATHLONE replied: Vice-Chancellor, Lord Goschen, my Lords, Ladies and Gentlemen—I thank you for the graceful and cordial terms in which you have received me, and for my own part I can only say how glad I am to

have this opportunity of making my first visit to this famous medical school.

On an occasion such as this, when you are completing new departments for instruction and research in Pathology, one cannot but remember the famous names of Bright, Addison, Hodgkin, Wilks and others, the founders of the great tradition in scientific medicine which you still so worthily maintain. The University views with great satisfaction every effort made by its constituent schools to provide themselves with accommodation and equipment worthy of institutions of University status and adequate, not only to the needs of the students, but also to those of the distinguished teachers who in themselves make for the fame and renown of the University. The University is especially proud of the strength and size of its Faculty of Medicine and of having been the means of combining within that Faculty the efforts and activities of a dozen medical schools, all of world-wide reputation. These medical schools of the University of London train within their walls nearly half the medical students of Great Britain, and in this work of training the future guardians of the national health render the greatest service both to the country and to the Empire.

I heartily congratulate the Medical School of Guy's Hospital on the fulfilment of its wise policy of concentrating all the departments of the School on one site, for it is only by close co-operation and intercourse between departments that the best work can be done, whether in teaching or research. I am also glad to learn that over and above the normal provision for research in each individual department, special accommodation has been provided for the Guy's Hospital Research Fellow and for the Clinical Research Unit of the Medical Research Council. The establishment of such Research Units is the sign of a new age in the scientific study of human disease, and the finest manifestation of this advance is the great organisation at Oxford recently set up and endowed, with his characteristic wisdom and foresight, by your Treasurer, Lord Nuffield.

The University recognises with appreciation that the work completed to-day has been carried out mainly from the ordinary funds of the School, without public appeal, though with some financial assistance from the Court of the University. The Medical School has had many good friends in the past: Sir Frederick Wills, who provided you with your Library; Mr. Robert Gordon, who provided the Museum which bears his name; and, last but by no means least, Mr. C. H. Wells and Mr. L. A. Dunn, who by bequeathing their estates to the Medical School have enabled it successfully to survive periods of financial depression which have been very serious for other schools. I hope that the example of such benefactors in the past may be followed in the future, in order both to clear the debt on these new departments and to facilitate the expansion of their work.

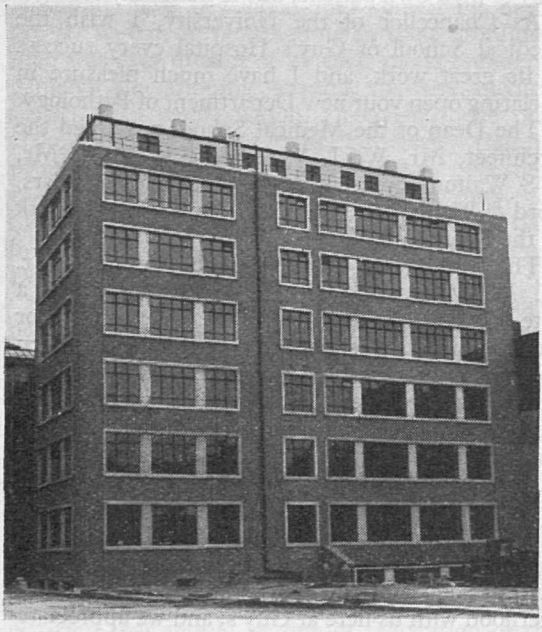
Though this occasion is one in which the Medical School alone is concerned, it must not be forgotten that the School and the Hospital are inseparably welded, for better or for worse. A medical school without a hospital is useless and impotent; on the other hand, though a hospital may exist without a medical school, the association with it of a medical school places it at once in a higher category. Not only does the association with a medical school attract teachers of the highest standing in their profession, but the presence of a body of students ensures that the teachers themselves, stimulated by constant criticism and observation, will have to give of their best to both the science and the art of medicine. The reputation of the hospital depends on its school, and the reputation of the school depends on the financial stability and efficiency of the hospital. For the full fruition of the partnership it is therefore essential that both hospital and school should be efficient, progressive and equipped to the highest standards. I stress this point, for I am not sure that the charitable public always quite appreciate the exceptional claims of the teaching hospitals. Their work goes far beyond the mere local treatment of patients. They are the training grounds of the medical profession, the homes of research, and the pioneers in benefactions not only to their own patients but to humanity at large.

As Chancellor of the University, I wish the Medical School of Guy's Hospital every success in its great work, and I have much pleasure in declaring open your new Department of Pathology.

The Dean of the Medical School presented the Architect, Mr. W. J. Walford, F.R.I.B.A., Mr. L. S. Walton (representing the Contractors, Messrs. Ford & Walton) and Mr. R. S. Downey, the Clerk of the Works.

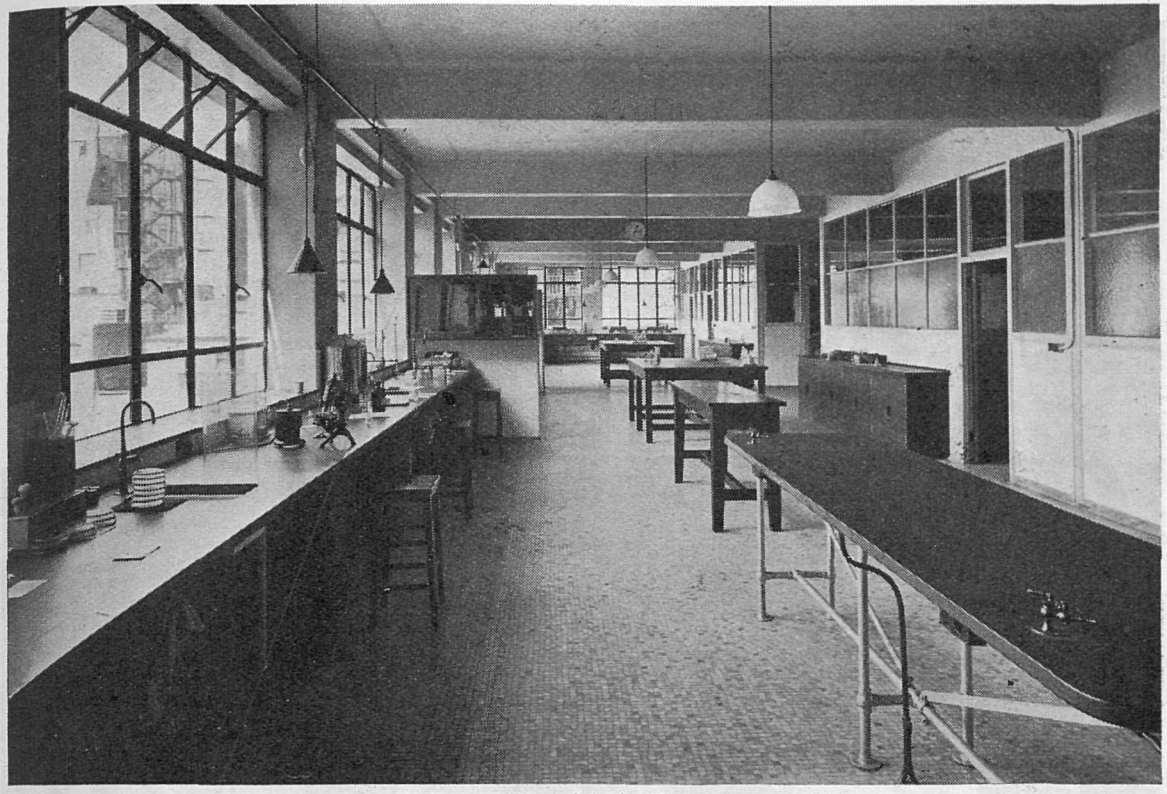
The CHAIRMAN of the School Council, Mr. W. M. MOLLISON, C.B.E., M.Ch., proposed a vote of thanks to the Chancellor. He said: For the last six years the Earl of Athlone has been Chancellor of London University, and I am convinced that no other University has so active and hard-working a Chancellor. He devotes a great deal of his time and energy to the University and is familiar with the Medical Schools. Indeed, he has a practical knowledge of them, in that he was once Chairman of the Middlesex Hospital and School. He is now showing his interest in another medical school of the University in spending an afternoon with us here at Guy's, and we appreciate the interest that he has shown and thank him for the honour he has done us.

View of St. Paul's from top of new block

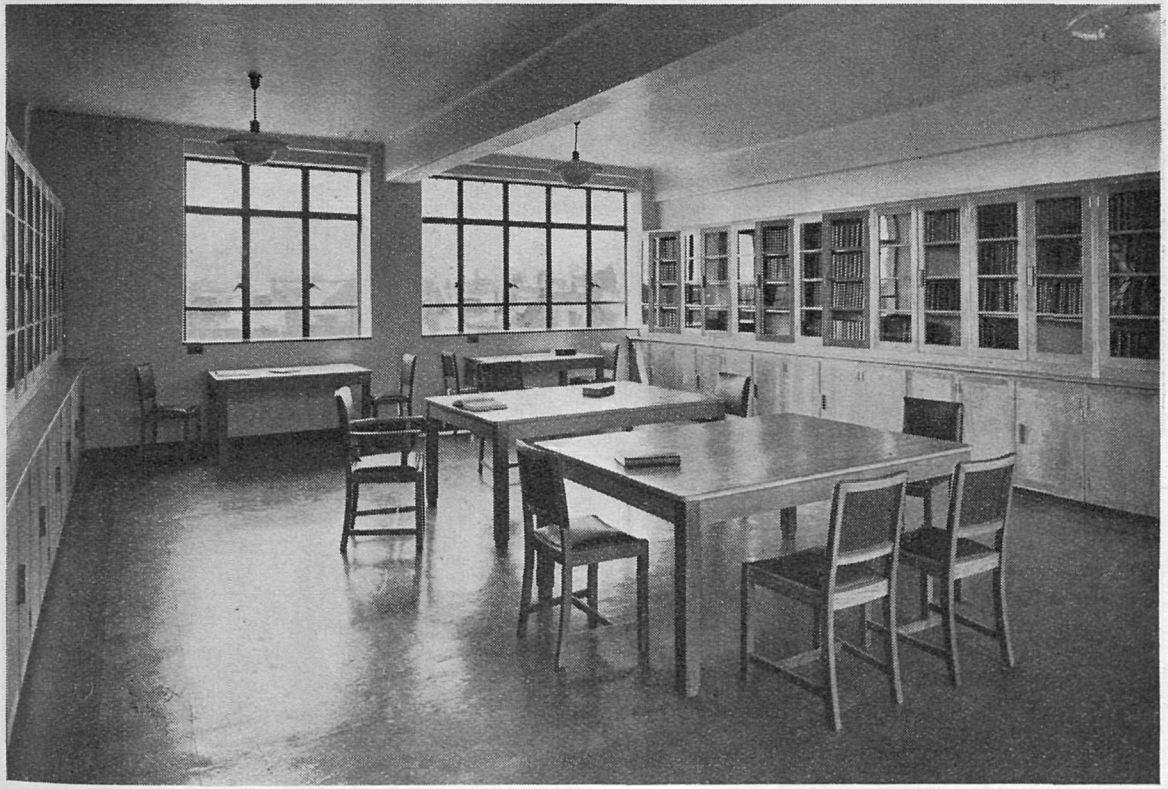


Exterior of new building

Research Laboratory



General Bacteriological Laboratory



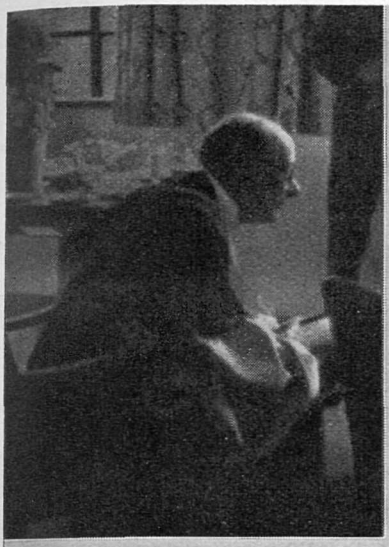
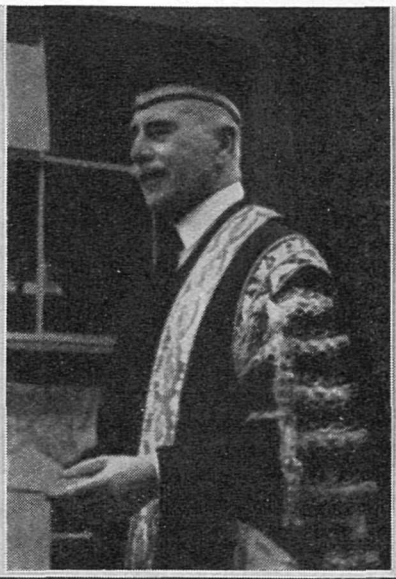
The Library

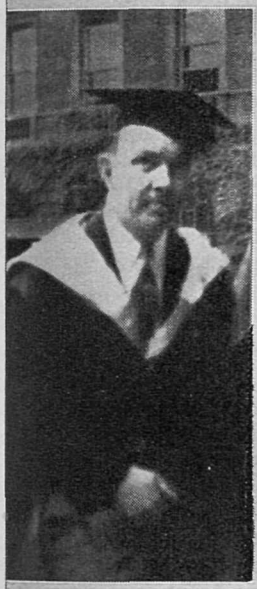
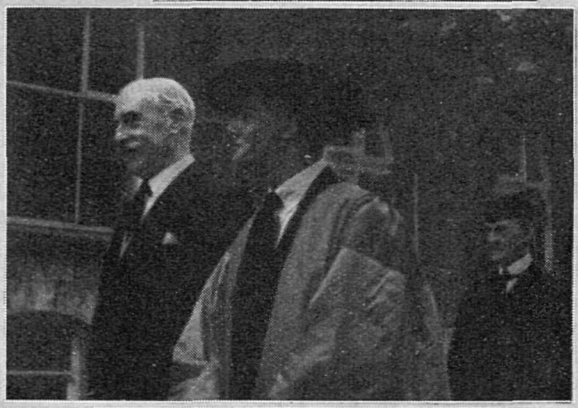
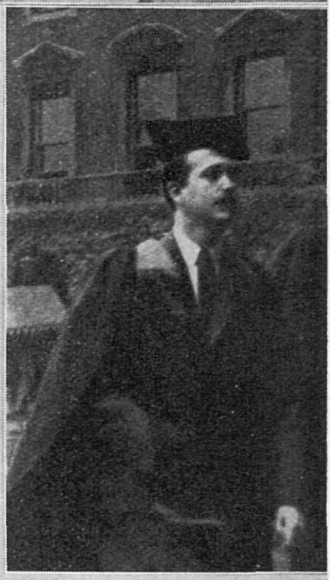
Left.—The Procession of the Staff of the Hospital crossing the Front Quadrangle, headed by Mr. Davies-Colley and Professor Gibson.

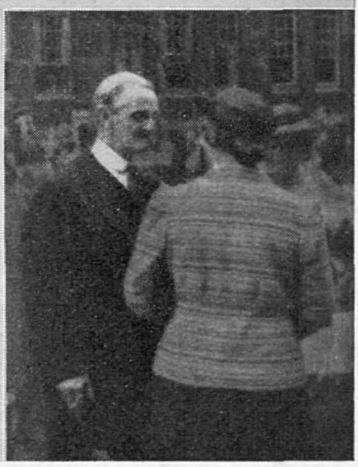
Below.—The Chancellor crossing the Park, preceded by the Mace.

Above.—The President and Treasurer, followed by the Dean, the Superintendent and Mr. Eason.

Right.—Miss Italia Conti's pupils giving a display of dancing.



1. Professor Eyre.
2. The Chancellor.
3. The Matron, Lady Bonsor and Mr. [Ormond.
4. Dr. Bishop.
5. Lord Goschen and Lord Nuffield.
6. Mr. Patrick Clarkson.
7. Dr. R. L. Waterfield.
8. The Treasurer.
9. The Dean.

The New Pathology Building and What it Means to Guy's

By Professor G. Payling Wright, M.D.

THE *Gazette* forms one of the main means by which old Guy's men learn what changes are taking place in the Hospital and Medical School, and I am very glad to accept the Editor's invitation to write a brief account of the new Pathology Extension—both of the building itself and of the position it is hoped it may take in the future activities of the Hospital and School.

The building, which was opened by the Chancellor of the University, the Earl of Athlone, on June 23rd, is a large eight-story fireproof extension standing behind the present Anatomy, Physiology and Chemistry Departments on a site formerly occupied by Spur Inn Yard, the outbuildings of a famous mediæval Southwark inn. It combines in a single unit the former scattered laboratories of pathology, clinical chemistry and bacteriology, previously housed in the old adapted warehouses familiar to all Guy's men. It also contains the laboratories of the Clinical Research Unit recently established at Guy's by the Medical Research Council under the direction of Dr. R. T. Grant, F.R.S., and the laboratories for the Guy's Hospital Clinical Research Fellow, Dr. A. A. Osman.

In the lower ground floor of the building there is a lecture theatre capable of seating 100, a pathology demonstration theatre for large practical classes, fitted with an epidiascope, microscopic projector and cinematograph, and a fully equipped workshop for the construction and repair of precision instruments. This floor is connected by a series of gentle ramps to the basements of the old Medical School, Nuffield House and the main Medical and Surgical Blocks of the Hospital. In this way an easy access is obtained for trolleys and wheeled chairs.

The upper ground floor opens directly from the main entrance to the old Medical School building, and is occupied by the senior Physiology Class room, a Physiology Demonstrator's research room and the Physics Department, in which arrangements are being made to carry out a large proportion of the teaching for the University Diploma in Radiology.

The first and second floors are almost entirely occupied by the Department of Bacteriology under Dr. Knott. The lower will be used for the routine work of the Hospital and the V.D. Clinic. It also contains a much-needed Senior Common Room. The upper floor contains the laboratories of the Hospital Bacteriologist and a series of research rooms for the Hospital and School Bacteriologists. It has also a series of media-making and sterilising rooms, stores and thermostatically controlled hot and cold rooms.

The third floor houses the Clinical Chemist, Dr. Ryffel, and also provides two research rooms in Pharmacology and a students' pharmacology demonstration room.

The fourth floor contains the Pathology Department. This possesses a large room for the preparation of all the Hospital post-mortem room microscopic sections as well as those used in teaching. Communicating with this is the secretary's room, in which copies of all post-mortem records are kept, together with the corresponding slides and wax blocks. This floor also contains two fine large and three smaller research rooms, microphotographic and dark rooms, and an excellent library for the Departments of Pathology and Bacteriology.

The fifth floor contains a large well-lighted room for kymographic work, a sterile operating room and preparation room, a large laboratory for research in experimental pathology, a technicians' lunch room, two laboratories for Dr. Osman, and a suite of four rooms for the Medical Research Council Clinical Research Unit.

The top floor is entirely devoted to animal accommodation. A series of three rooms, complete with steam sterilising equipment and a gas destructor for infected material, will be used for inoculated animals. Well removed from these rooms is a series of two large and six small rooms, all opening out of a central glass-covered area, in which the stock and non-infective animals will be kept. Two main precautionary measures have been attempted—the complete segregation of quarantine and infected animals, and the maintenance of adequate heating at such times of the year as it may be necessary by thermostatically controlled hot-water panels and emergency thermostatically controlled electric boosters. The whole accommodation is well lighted and ventilated, and is supplied with a special service lift to the lower floors.

The total cost of the building and equipment to the Medical School (for a number of years the Hospital and Medical School finances have been kept separately from one another) has been between £85,000 and £90,000. About £45,000 has already been obtained—£10,000 in the form of a Capital Grant from the University Court, the rest largely through the careful conservation of the surpluses available in the Medical School since it accepted funds from the University Grants

Committee about ten years ago. Nevertheless, a debt of £40,000 is a very large one to carry, even with the generous support of the University, and the full benefit of the building to Guy's will not be obtained until most of the outstanding sum is liquidated and funds become available for the appointment of additional staff.

There are times in the development of long-lived institutions when it becomes necessary to consider in a broad way the purposes for which they exist, and how fully their current arrangements and policy allow those purposes to be attained. Institutions like St. Bartholomew's, St. Thomas's and Guy's Hospital were founded with the particular purpose of providing medical help for the sick poor of London and Southwark, and for centuries they were the only places at which such aid was obtainable. At the present time there are about 150 voluntary and about 100 municipal hospitals undertaking the now enormously magnified task of looking after London's health. But whatever may have been the relative decline in their importance merely as hospitals, the importance of the old trio as centres for medical education and research has increased out of all proportion. Guy's, originally founded to look after thirty or so thousand people in the Borough, is now supplying trained doctors for about three million people in various parts of the country and empire.

It is a proper recognition of this position of responsibility that should determine the policy of the London medical schools at the present time. With half the medical students in the country in course of training in their laboratories and wards, these schools should not be allowed to suffer because changing times and customs are adversely affecting hospital finances. Numerically considered, the requirements of beds for medical schools is very small indeed when compared with all those needed for the care of the sick, but it is eminently desirable that those beds shall be maintained at the highest level if teaching and research are not to suffer. *The primary aim and object of the dozen or so London hospital-medical school partnerships is medical education and research*, and those in charge of them should do their best to prevent their plans being hampered by temporary makeshifts and expedients.

The new Pathology Building represents an effort of the Medical School at Guy's towards a thorough modernisation of its laboratory departments. It provides not only excellent new facilities for teaching, but also first-rate opportunities for research work in almost any medical scientific problem. The importance of providing such research opportunities for the younger men at places like Guy's cannot, I think, be over-estimated. Of recent years there has been a tendency in this country to concentrate support for research into large scientific institutes and post-graduate schools. Though these places are becoming increasingly successful and productive, it must be in the larger teaching hospitals that the recently qualified men will get their first opportunities for research and that many of the practical gains in Medicine will be made.

When the editor of the *Gazette* approached me, he asked me to give some idea in a few words as to the function that the new building would serve at Guy's. I think that the best answer I can give is the hope that it will serve as a centre where the advances in the fundamental sciences can be examined for their possible importance in human pathology and therapeutics, and where suitably qualified persons have the necessary facilities for their work.

The Future of Clinical Pathology at Guy's

By Dr. Knott, M.D.

IN recent years those responsible for the clinical pathology of Guy's Hospital have found themselves working under increasing disadvantages either as regards accommodation or equipment or both. The sections devoted to post-mortem room laboratory work and clinical chemistry have been condemned to carry on in what may fairly be described as a converted warehouse —converted many years ago. The Bacteriological Department, though more favourably housed, has been steadily outgrowing the space available, in sore need of re-equipment and suffering from the disadvantages inseparable from its complete isolation from the other laboratories.

Erection of the new Pathological Block has not only at last provided the much-needed opportunity to house the Departments concerned under one roof, but also completely to modernise them. The advantages of the new arrangement are threefold. Firstly, it is possible for those responsible for the different branches of the work to keep closely in touch with each other, far better correlation of results being therefore possible. More complete and appropriate investigations can be

instituted. Secondly, it will now be much easier for all clinicians interested in particular cases to follow the actual progress of any laboratory examinations being made for them. And thirdly, considerable economy of time and money will result from internal co-operation between the laboratories.

At first sight the new buildings may seem to be more remote from the wards and out-patient departments than those formerly utilised, but in actual fact there is but little change. Although the distance from the surgical side of the Hospital is certainly greater, that from the Medical Wards and the Out-Patients is decidedly less, and it is from these latter that the greater number of specimens are derived. Moreover, as all patients and specimens, whatever investigation be required, have now to be brought to the same place, it has been possible to arrange for their reception at a single inquiry station, namely, that of the Routine Bacteriology Laboratory on the first floor. At this point is a patients' waiting-room which leads into another room equipped for all ordinary forms of specimen collection and available to the staff of the departments occupying the upper floors. Specimens which have already been collected are placed, as they are brought in, upon appropriately marked tables standing near these first-floor rooms. Subsequently they are distributed to whichever laboratories they belong. In this way will be saved many journeys on the part of patients, ward-clerks, nurses and the many others who at different times form the first link in the chain between the clinical and laboratory sections of the Hospital. The passenger and service lifts connecting all floors will be invaluable in furthering this scheme.

The large bacteriological laboratory is devoted entirely to hospital routine work, the experimental section and the media-making, sterilising, packing and distributing rooms having been placed in separate wings of their own on the second floor.

Immediately above on the third floor is housed as a single unit the laboratories devoted to clinical chemistry, also with accommodation for both research and routine work, and one story higher is a fully equipped department devoted to the laboratory aspects of post-mortem room routine.

This arrangement avoids all possibility of congestion and confusion. Anyone working in the wards, from members of the Staff down to most junior students, can now easily locate the particular routine work in which he may be interested and see its actual performance, unobscured by the technical procedures which at times tended to overwhelm the old, separated departments. Fully equipped benches have been made permanently available for use by any members of the medical and surgical firms who wish to examine specimens themselves, and it is hoped that of these full use will be made.

The routine clinical pathology of a large teaching hospital calls for ready availability of technical references and much systematic record-keeping. These are well provided for in the new block. An excellent library has now been formed by collecting together the volumes formerly found only in individual departments, and the facilities for secretarial assistance have been increased.

Among so many improvements it is difficult to enumerate all of the many ways in which the work of this well co-ordinated chain of laboratories will react to the benefit of those being treated or working in the clinical sections of the Hospital. But sufficient has, perhaps, been said to illustrate the immensely improved conditions under which the clinical pathology of Guy's will in future be carried out and the new interest and opportunities which they offer.

The New Laboratories of the Pathology Block, Medical School Extension, Guy's Hospital

(A few Notes by the Laboratory Furniture Contractors, Messrs. Charles Hearson & Co., Ltd.

THE Medical School Extension Block has come into being. Adjacent to the existing building it towers up a matter of five stories into the blue. Designed by the Architects and Surveyors, Messrs. Thompson & Walford, it exhibits, both externally and internally, with all its features of layout, an efficiency in design which for many years to come will serve as an example to authorities of hospitals and similar institutions of what constitutes modern-day laboratory practice. Many old Guy's students may regret that during their " years " such laboratories were not for them—a sequel which may somewhat be tempered by the thought of a possible future return to their Alma Mater for a refresher course.

Early in June, 1937, Messrs. Charles Hearson & Co. received from the architects the plans of laboratory floor disposition, and furniture speci-

fication in connection with this laboratory block, with an invitation to tender. On June 21st our proposed layout, suggestions with drawings and priced estimate were submitted and which, we were subsequently informed, the Governors of Guy's Hospital accepted. The contract was duly signed on July 15th, 1937, at the offices of the architects, and the work was immediately commenced.

The various laboratory departments are allocated as follow: Fifth and fourth floors—Pathology and Histology; third floor—Pharmacology, Clinical Chemistry; second floor—Bacteriology; first floor—Serology; ground floor—Physics and Physiology; lower ground floor—Physics and Histological Demonstration Theatres, with complete workshops.

With the many laboratories covering such a wide field of medical work as exhibited in this new Medical School Extension Block, it is seldom realised by the layman what amount of forethought is necessary before finality of plan is reached.

The architect is responsible for the building with its internal layout design after consultation with the Hospital authorities' laboratory chiefs, having due regard to the involved character of the routine and research work which is to be carried out.

We, as the manufacturers of the laboratory furniture and fittings, were supplied with the laboratory floor plans, elevations of walls with window and door disposition, positions of wastes, water, gas, electricity, air-pressure supply services, etc., and from these details, and after discussion with the heads of the various laboratory departments, a layout, plan of benching and furniture design was finally architect approved. This cleared the deck for action, and the laboratory contractors' troubles commenced in earnest. Working detail drawings had to be prepared both for the workshops and the foreman and erectors on site; the order book for supplies of specified timber, water standards, sinks, gas taps and a host of incidental material rapidly filled up. Rods had to be made and checked for the wood-machinists' use, and from which detail the timber of benches, cupboards, etc., was machined to dimension ready for the joiners and carpenters. Work had to be organised so as to produce a regular and continuous flow between the workshops and the laboratory site, in order to keep the erectors well supplied.

We were working to a time schedule. That persevering Clerk of the Works, Mr. Downey, was insistently on our tail, and we endeavoured either by acquiescence or evasion to "meet" his demands. He was a good fellow and we tell him so. All, however, was not plain sailing, as at intervals there were S.O.S. signals from the various laboratory chiefs for certain modifications, additions and alterations to be made to existing plans. Close contact was made with the Hospital executives, and this liaison helped to smooth out the difficulties which unexpectedly but inevitably crop up when such work is in progress. We gratefully acknowledge and offer our thanks to Prof. Wright, Dr. Knott, Dr. Ryffel, Dr. Osman, Dr. Mutch and to others, whom we may have omitted to mention by name, for all their valued assistance.

The following details with reference to the laboratory benching and furniture may be of interest. All the bench tops and external framings are of best Moulmein teak with a waxed finish, which appearance will improve with age. Drawer pulls and cupboard handles are of the bakelite rail type. Wall benches are supported on galvanised iron tubular pillars with flanged feet for screwing to the floor. Under the benches are pedestal cupboard and drawer units which can be conveniently moved into any desired position as may be required. All the white glazed sinks are laboratory designed; the water standards and gas fittings are in oxydised finish. Special comment should be made relative to the plumbing and supply pipe work throughout all the laboratories, which is an example of high-grade installation.

The apparatus cupboards are built with sloping tops, a feature which not only permits the easy removal of dust, but also prohibits the stowing of bottles and sundry odd apparatus on the top of the cupboards, which practice always adds an untidy note in the laboratory. The main fume chambers deserve mention, these being constructed with acid-proof basolite soles and counterpoised wired glass sashes, the fumes being extracted through asbestos compound ducting by means of a motor directly coupled to a fan operating in the duct and electrically controlled with start and stop switches.

Both Demonstration Theatres call for comment. When projecting with the epidiascope on to the screen a partial or complete darkening of the theatre can be secured at will. Full control of the window or skylight blinds is effected by means of electrical and mechanical devices operating through a switch control system in front of the lecturer's bench. Another interesting design feature in the theatres is that of the blackboards—a misnomer, perhaps, these really consisting of black glass the face of which is ground to a fine finish to produce an excellent writing surface. The glass, indestructible in character, is framed in teak and

counterpoised with lead weights on catgut lines running over sheaves into boxes.

In the Histological Theatre the white-tiled benching is so designed that each pair of students is provided with a sink with water, gas and electricity services.

A pleasing note in struck in the Library. The furniture, consisting of bookcases and cupboards, bookshelves, tables, etc., is constructed in Austrian oak left natural and wax finished. Austere, perhaps, but nevertheless on entering the Library one cannot but be imbued with the existence and a feeling of an all-pervading atmosphere of brightness.

In conclusion, we do not overstate in saying that we are proud of our job. That we have been allowed to participate in completing these laboratories has filled us with a sense of pride. Throughout and amongst our executives and workers an atmosphere of "pride of work" has been exhibited. These modern laboratories, as did the old ones which they have replaced, will materially assist—with greater efficiency if that were possible—in the medical routine and research work which is being constantly directed towards the means for the alleviation and cure of the ills to which humanity is prone and towards which end that "House of Healing," Guy's, has always played its part. H. J. B.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.
(*continued*)

Wednesday, September 22nd

(7.30 a.m.)

DEACONESS Hospital to watch Cattell do second stage Lahey resection of rectum (first stage described in another patient). This woman had a large growth involving pouch of Douglas and right utero-sacral fold.

Anæsthetic.—Spinal. Here and at the other hospitals anæsthetists seem to keep a chart of pulse, systolic and diastolic blood pressure, filling in the curves, and holding the chart up for the surgeon to see.

Colostomy strapped over. Lower opening oversewn, painted with iodine and covered with swab. Incision in mid-line above opening, which is ignored, abdomen opened and explored. When all is free the upper end of colon is quickly freed, covered with rubber dam and tied over. He then did a very thorough dissection on each side, tied superior hæmorrhoidal, dissected out ureters right to entry in bladder, tied uterine and vaginal branches, dissected bladder half-way down vagina. Then divided vagina in front, packed iodine gauze in it, carefully closed and oversewed lower end. The tying off of all the vessels, some very big near base of bladder, was masterly, patient lost very little blood, and at the end the pelvic viscera were free right down to floor. He packs colon well down into back of pelvis to force bladder up. Then he freed the peritoneum on each side and off the bladder with his fingers. The way it came free was a revelation, and where before there seemed peritoneum at the edges only, he then had plenty, and closed the floor without any real tension. To make sure he took free edge of omentum to right of part sutured to colon mesentery, and tacked it by many stitches to the suture line of pelvic peritoneum. It was wonderfully careful suture, about watertight, shutting off all small intestine from pelvis, yet done very quickly. Not a drop of blood left in abdomen.

Abdomen closed—peritoneum continuous lock suture in two bits. Interrupted to rectus muscle. Tension sutures. Silk sutures to skin between tension stitches. He ties all skin things very, very loosely. Drain to extraperitoneal layer between stitches.

Perineal part.—Left lateral. Never, if possible, remove coccyx.

(*a*) Very apt to be painful (see orthopædic experience of excision).

(*b*) Middle sacral always bleeds.

Incision ellipse round closed anus, transverse in perineum. This transverse part is important; sewn lengthways it pushes vagina forward. A longitudinal ellipse drags on vagina when healed and causes discomfort.

After turning back skin and fat he starts with free transverse cut below coccyx down to fascia. Then levatores are cut across about halfway out. The rectum and uterus have been so freed above, that the rest of the job is only freeing the rectum from the lower vagina and perineal muscles—a simple affair.

Suture is very careful. At the anterior end he brings the perineal muscles of each side together with a lot of small stitches. Then he does the same with ischio-rectal fat, bringing it together over a wide expanse and leaving no dead space. A cigarette drain is brought out through the

middle of perineal incision; either end is bad. Drainage should not last more than a fortnight.

He pointed out she was sweating, which he regarded as some evidence of shock. However, blood pressure was 130/70 and pulse about 100. Same evening I saw her, and she was really fit. She had been transfused a pint. He always ties in a catheter for a week.

A magnificent show. Cattell is one of the really great operators. This job took about 1½ hours; it was atraumatic and nearly bloodless. Lahey is giving Cattell most of the rectal and colon work.

I went from this operation to the Peter Bent Brigham (made famous by Cushing (to see Cutler. T. B. Quigley, who has visited me at Guy's, is registrar. Roscoe Clark is doing a genito-urinary job, and showed me round the hospital. The Peter Bent Brigham have a large animal research department. All the medical buildings here form a beautifully planned and designed group.

After lunch (Help Yourself at Peter Bent Brigham) I called on Perkins about his iodine estimations. Then to the Clinic for massage. Picked up Cattell and then went with him to Deaconess for acute appendix. Patient a small girl, not ill. Given spinal (not with any enthusiasm on Cattell's part). Incision Battle. Appendix chopped off, tied twice, carbolic, and long stump of mesentery included in appendix stump ligature. No purse string.

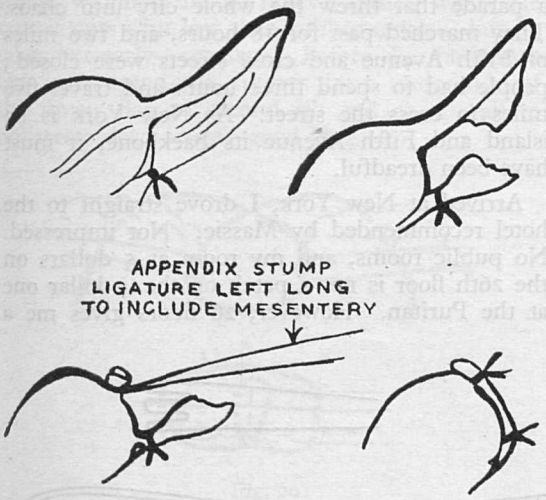


Fig. 17

We then had a run round the Deaconess Hospital. Cattell has a number of cases of ulcerative colitis in varying stages of resection.

He puts both ends of ileum apart like I do; the proximal near the mid-line, the distal over the cæcum. Next time he makes a lateral rectus muscle split including the distal opening, and removes as much colon as patient will stand, the ileo-colic part, that plus middle colic, or all the way round. Where he stops he brings the distal end out, in a clamp, as in the Lahey rectal resection, and includes it in the incision for his next stage. He has always removed rectum and left permanent iliostomy.

He has solved excoriation. Fuller's earth as a dressing—and how!

He then drove me eight miles to his very nice home for dinner. Very few people smoke much, drink alcohol, and none seem to chew gum except the lowest of the low. In chatting, Cattell became very human. Drove me in at 10, still going to see more patients.

Thursday, September 23rd

To Massachusetts General, to see Dr. Allen, Professor of Surgery. A shrewd little man, very like John Fraser. I arrived in the middle of "grand round" from 10 to 11. This is the kind of thing we need at Guy's, a synopsis in a theatre at which most of the staff attend and students present their cases. The young men were excellent, confident and clear, and the questions and answers most illuminating.

1. A mangled hand. Dressed cod liver oil.
2. A fractured spine. Treated hyperextension.
3. Old man; gastric ulcer, gastrectomy, then obstruction and entero-anastomosis. Went out, came back a month later with œsophageal obstruction. X-ray. Œsophagoscope showed a benign stenosis about two inches long that yielded to dilatation. One speaker said Chevalier Jackson has reported three cases with œsophago-stenosis with genito-urinary; two had œsophageal ulcers.

Fig. 18

In the passage was a magnificent X-ray demonstration. A lot were to show the value of "relief examination," apparently "wash" pictures or air replacement.

1. Œsophageal varices.—Lots now demonstrated.
2. Stomach.—Hypertonic gastritis, granulations of mucus, polypi.
3. Colon.—Small tumours.

There were other frames of parathyroid disease.

Oliver Cope has been talking parathyroids all day, and I have none of it down. The only things that stick are :—

1. Parathyroid over-activity may show itself—
(*a*) by typical Rechlinghausen;
(*b*) by diffuse loss of calcium in skeleton (the bad film syndrome);
(*c*) by renal calculi (always look out for this).
2. Hypersecretion may be due to :—
(*a*) Adenoma.
(*b*) Hypertrophy.

In the latter case one has to attack all parathyroids, but part of one must be left, complete parathyroid tetany is dreadful.

3. They are very soft, with no capsule, and easily damaged.

I attended a medical clinic on three cases of gastric surgery failure. Hope to discuss this if I come here again. They are very much where we are, *i.e.*, up the garden path. Allen said men seldom die of bleeding ulcers under fifty.

After another grab lunch with James White, an interesting fellow whom I have not seen enough, I went to operations. They have a long passage with theatres off it each side. All doors are open and people wander in and out.

Allen opened a pelvic sepsis, and resected a diverticular loop as a Miculicz, leaving some doubtful tubes. What he likes to do is a cæcostomy, followed by resection and end-to-end suture by aseptic method.

Cope was exposing both adrenals, they were both normal. He has a long incision, outer border of erector spinæ, with subperiosteal resection of 2 inches of 11th and 12th ribs. In spite of this the room seemed very limited.

Dinner with Stephen Jones at Harvard Club.

Now waiting for midnight train to New York. I like Boston, and would hope to come this way again before I leave. I only wish I had time to see the place itself.

Last memory—an endless stream of swell saloons, all alike, all going like hell, passing each other either side at top speed, and turning without signalling. The most striking thing is the wireless masts about half of them carry, long swaying rods about 7 feet high and no thicker than a knitting needle. I shall soon be an American car enthusiast. The power, silence, comfort and fitting of the Cadillacs and big Buicks is astonishing.

Friday, September 24th

I took the night train to New York. The price is the same as a ticket for the best day train, and one saves a day and an hotel bill. The travel was surprisingly comfortable, once one got used to the shock of an American sleeper and its negro attendants. Boston station was magnificent, but I find in this country a surprising absence of labels—lavatories, for instance, not indicated, tubes and bus systems with no maps or clear route indications. The station was full of returning "Legionaries." The American Legion seems something quite different to our Legion. They wear blue uniform, with gold, and the name of their State on the cap. They are highly organised, highly political, and, like everything political in this country, are in the secure grip of an Irish minority. This "convention" in New York has been something incredible. I forget the numbers—something like 400,000, but they descended on New York and for nearly a week pretty well disorganised it. All hotels, except the most expensive, were full, and on Monday they had a parade that threw the whole city into chaos. They marched past for 18 hours, and two miles of Fifth Avenue and cross streets were closed; people had to spend three hours and travel five miles to cross the street. As New York is an island and Fifth Avenue its backbone, it must have been dreadful.

Arrived at New York, I drove straight to the hotel recommended by Massie. Not impressed. No public rooms, and my room at 5 dollars on the 26th floor is not a patch on the 4-dollar one at the Puritan. However, 26 floors gives me a

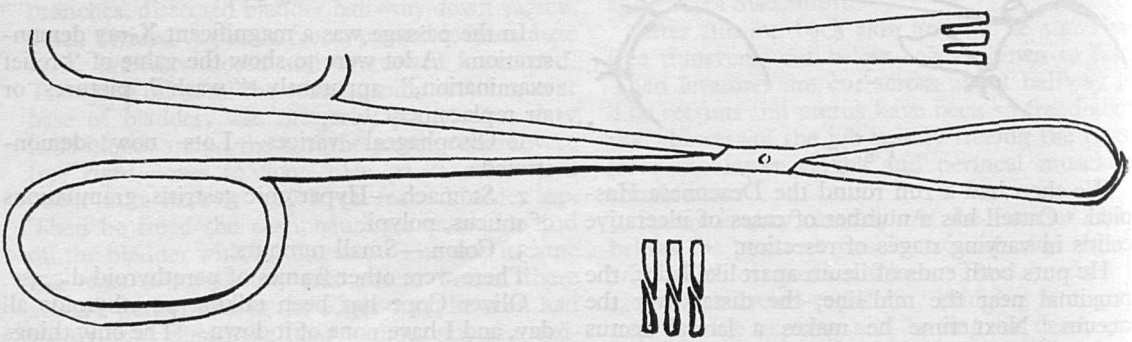


Fig 19.—Lahey's Double Hook

look out. It is a sunny morning, and the first view of the New York skyscrapers, even from land, is breath-taking. They are so incredibly beautiful. Long slender lines with shapely masses, but no ornament at all. They are built of a beautiful honey-coloured brick, unsoiled, and glow in the sun. New York seems extremely clean, and smoke does not exist. The fuss and hurry one hears about seem pure libel. Everybody is extremely polite, including the policemen, whom one always hears cursed right and left. In a week I think I have only seen three people chewing gum—a telephone girl and two policemen. The only snag in New York is the shattering racket of the elevated railway.

I found a message that Whipple had two operations at 8.0 I had to get clean and have breakfast, and found that a bus to the Presbyterian Hospital took nearly an hour, so that it was 9.30 when I got there. However, he was only half-way through his first case, a carcinoma mammæ. Whipple is one who has adopted the Halsted outlook, not having been brought up in its tradition. He does everything with the knife, and always uses silk, very fine for ligatures. He has a great respect for tissues. Hates washing them with saline, " the holy water " of surgery.

He takes the pectorals from within out after doing the axilla; looks good. An excellent skin stitch, which seems to relieve tension well. He says it cuts skin less than rubber tension, but he takes out early—six days. Before skin he puts a few interrupted silk sutures from under-side of the upper flap to second rib and chest wall to obliterate dead space—good idea.

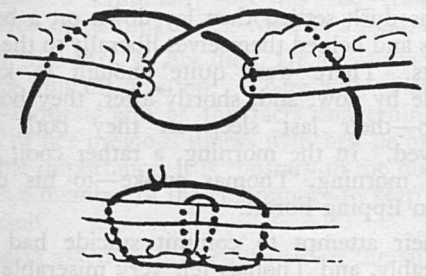


Fig. 20

Anæsthetic.—Avertin (small dose), gas, oxygen.

The second case was a gall bladder. Split rectus incision. He has four assistants like the Boston people. Nothing special about the operation; did not explore common duct. Appendix removed without ligature of stump. Closed abdomen without drainage, which he prefers, but does with caution. Above double stitch used to close rectus sheath with interrupted sutures. Peritoneum, continuous silk, with interrupted over it every inch. (I must do this—without the silk.)

Talked of tension-relieving stitch for bad infected cases. Point being that stitches go round linea alba.

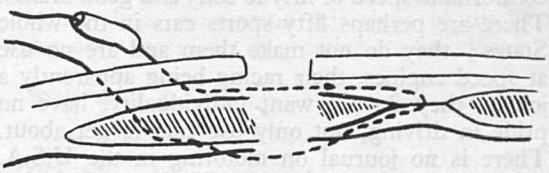


Fig. 21

Afterwards clinical lecture on acute pancreatitis, supporting the expectant treatment. Whipple is a sound operator, but I wish he had never heard of Halsted; a charming man, and obviously a clear thinker and great influence in surgery.

Whipple gave us lunch (a light meal here). I spent most of the afternoon trying to get to-morrow's operations and finding nothing very definite. Got an admission to Harvard Club and arranged a transfer to-morrow. Went to Radio-City; saw two-thirds of " Lost Horizon " and a really beautiful stage show—ballet and chorus dance. The thirty-six Radio-City girls leave everything else in the world at the post.

Saturday, September 25th

Morning, writing and transferring to Harvard Club. Jim came for me at 12 in his new car, an open Studebaker 1935, done 11,000, unscratched, with radio and everything, for which he gave 450 dollars. He expects to make 200 dollars on this in California. He took me to Roosevelt race-track, where some of his friends were having a meeting of a newly-formed amateur motor racing club. Incredibly hot, dry and dusty, but quite good fun. The chief interest was that all cars were foreign, except for one or two freaks made up from Ford's. M.G.'s well represented and very popular, with Alfa Romeos second. Jim, used to Brooklands, finds the whole thing a bit amateurish.

The drive out was beautiful, up Long Island. Through a park on the most wonderfully perfect concrete roads, with guarded crossings, filter tracks, special lanes to filling stations and so on. If you know your way a wonderful drive, but if you make a mistake it is just too bad. The driving is extraordinary. They are all going about fifty and packed like sardines in three rows abreast. They leave no space, and if one man brakes you

must jump on yours. If an accident happens it must be terrible, but I've never seen a near accident. You never see a bad-tempered, ill-mannered or incompetent driver. The main difference between their problem and ours is that we have cars of every size and speed, from supercharged Mercedes to five-pound wrecks. All their cars are very much the same, saloons with a comfortable speed of fifty to sixty and good brakes. There are perhaps fifty sports cars in the whole States; they do not make them and are no use at speed engines, their racing being apparently a joke; they do not want individuality, have no pride in driving, but only use cars to get about. There is no journal on motoring in the U.S.A. and no one lifts his bonnet. It is thus a problem of a bunch of road travellers, and not of motorists or drivers for pleasure, a conception they cannot understand. In the evening I went with Jim and his friend Mrs. E. to the Cotton Club—negro dancing at its best. The American girl knows how to dress and look. Hair beautiful without the sausage ringlets that our professional beauties flaunt, make-up absent or concealed—no painted dolls.

Sunday, September 26th

Sat down in the morning for the fracture paper on specialisation. Though I have had hours of this, it will not shape. Called Mrs. E. at 3 p.m. and went walk to Central Park and round Zoo there. Then back to Rockefeller Buildings. Seen as a whole this group is magnificent, its setting and the lawns and fountains round it, the simple grandeur of the enormous masses, the detailed decoration inside. Fit to stand with Town Hall at Stockholm. The high-speed lifts are astonishing; first stop 53rd floor, rate about four floors a second or more, but it is so silent and acceleration and deceleration are so sweet that the only indication of speed and ascent is the deafness. Wonderfully organised tour of the whole broadcasting system by uniformed guides, well educated and amusing. Includes watching two broadcasts and a rehearsal, seen from sound-proof galleries with loud-speaker in them. Then up to Rainbow bar for cocktail, and lastly to the roof (65th) as the sun started to set and the lights come out. Empire State Building is, I believe, 104 floors, but looks no higher. Dined Waldorf.

What Do You Think ?

No. 5

(A Prize of one guinea will be paid to the sender of the best solution, as judged by the Editor, and received before Monday, July 11th.)

THOMAS first met Phyllis in hospital; he lay stricken with tuberculosis and she was "his nurse." They were both very young, and soon that easy friendship which so often develops between nurse and patient grew into something more complicated. When Thomas later stood in the dock at the Old Bailey charged with the murder of Phyllis, Counsel described the affection as "ripening into love."

Somehow this romance was predestined to tragedy, for Thomas was incurably phthisical, and Phyllis knew it. Thomas found it out shortly after his transference to a sanatorium, for he discharged himself and came back to live near Phyllis. Even at that time he was fast going downhill and getting so little sleep that his doctor needed no persuasion to supply him with a prescription for aspirin, phenacetin and caffein (A.P.C.) pills to help him to get some rest. Phyllis occasionally supplemented these by a stray medinal or two from the ward drug cupboard, and Thomas himself began to collect his A.P.C. in increasing numbers by presenting his prescription for re-dispensing at the local chemist's.

One Spring evening he and Phyllis took a taxi to the Wake Arms and, after paying it off, walked away into Epping Forest, in which this famous "pub" stood. They had decided to die together, and as dusk settled they lay down on a bank of leaves and helped themselves liberally to the white tablets. There were quite enough to kill six people by now, and, shortly after, they both fell asleep—their last sleep as they both firmly believed. In the morning, a rather cool, damp, dewy morning, Thomas awoke—to his dismay still in Epping Forest.

Their attempt to commit suicide had failed miserably, and Thomas felt very miserable about it all. You see, analysis later revealed that those white pills contained nothing more harmful than plaster of paris; the chemist had grown suspicious of Thomas's frequent visits for them and, fearing that he was accumulating them for the purpose of taking his life, had substituted this harmless product instead of aspirin, phenacetin and caffein. Thomas was still determined in spirit, however, and, taking a "cut-throat" razor from his case, leaned over Phyllis as she lay asleep, shut his eyes,

grit his teeth, and with one rather shaky stroke slit her throat. For two hours Thomas tried to summon the courage to do the same to himself; he stroked the razor across his neck, he " nicked " the skin, and then he lay back trembling with fear, for he could not do it. Eventually he folded it up, put it in his pocket and, very weak from exposure, crawled away for help. Late that afternoon a passing motorist saw him in a ditch by the road, and, after searching all night, police found Phyllis—dead.

Thomas was, of course, charged with murder, and convicted. It was a terrible affair both for him and for his family, and the pity is that it need never have been, for had the chemist continued to dispense correctly the prescription Thomas would not have been alive that fateful morning; it would have been just another suicide pact. The chemist's view was that he had done what he felt best at the time; was it wrong? Was it any more wrong than dispensing pink or green aspirins for a doctor at his wits' end for " something else," or than those comforting injections of distilled water or saline given as sedatives or vaccines?

Well, what do *you* think? Are they wrong?

SOLUTIONS TO No. 4

Winning Solution to No. 4.

By P. H. Denton, of Guy's Hospital.

Dr. O. was right in removing his patient to a nursing home when he suspected poisoning, but after she had recovered he should not have allowed her to return home without taking steps to prevent a " relapse."

He had laboratory evidence to support his clinical findings and should have been reasonably sure of his diagnosis. His proper course, therefore, was to seek an interview with the local police superintendent and inform him of the matter. This is not in any way a breach of professional secrecy, since it is done with a view to protecting the patient's life.

Having given the information, the doctor is under no further obligation, for it is not his business to decide whether the arsenic was administered criminally or was the result of accidental contamination of Mrs. P.'s food.

Now that Mrs. P. has died, Dr. O. is placed in rather a difficult position. There will, of course, be an inquest, and as the facts concerning the nature of her previous illness will then be of considerable importance, it is contrary to the doctor's duty as a member of the community to keep them to himself.

If he is asked to give evidence on the subject, he will be obliged to tell all he knows, and will probably be criticised fairly severely for not informing the authorities two years before.

It may be, however, that as he did not attend the deceased during her last illness, his evidence will not be called. His best course, therefore, is to inform the coroner himself as early as possible —it will prevent misunderstanding, and may even induce the Court to take a kinder view of his previous omission.

Our Solution to No. 4.

Some of our correspondents this week appear to have nursed the idea that Dr. O. might either give a certificate of some kind or, worse, deliberately commit perjury by giving a death certificate to say Mrs. P. died of some natural cause.

Dr. O. clearly had no course but to report Mrs. P.'s death to the Coroner; in any case he had not seen her since her illness of two years previously. Now Dr. O., although knowing that Mrs. P. had been having arsenic, had not, of course, any absolute proof that Farmer P. had given it to her, and it would have been risking an action for libel to inform the local police or district C.I.D. of the matter. It has been held, however, that if a doctor suspects criminal poisoning he owes a public duty to disclose his knowledge; he should not only put his patient temporarily out of harm, but also communicate with his police superintendent or Scotland Yard.

As regards Dr. O.'s liability for defamation—it is no defence to a criminal libel to prove merely that the alleged facts were actually true; it must also be shown that the publication benefited the community, and in this respect Dr. O. would be perfectly safe in reporting his suspicions. In the witness box he could with impunity disclose his knowledge of the events arousing his suspicions with regard to Mrs. P.'s death, for disclosure in such a place would not be actionable unless it were perjury.

Dr. O. should, then, have removed Mrs. P. *and* reported the matter, and when she died under those queer circumstances he should again have made it his duty—after reporting the facts to the Coroner—to inform him in a private communication of his previous experience with her, and of his present suspicions. Such action would be held privileged.

A. D. M.

Reviews

Diseases of Infancy and Childhood. By WILFRED SHELDON, M.D., F.R.C.P. Published by Messrs. J. & A. Churchill, Ltd., London, 1938. Second Edition. Pp. 739. *Price* 21*s.*

PÆDIATRICS is perhaps the most sorely neglected subject in the student's curriculum, and when the prospect of the "Finals" looms unpleasantly nigh, he remembers that "Kids" will form one-fifth of the Medicine papers. It is at this point that he must needs resort to a textbook on Children, and he demands that the book shall not be unduly large. Dr. Sheldon's book must have been the choice on many occasions, for in the short period of two years the second edition has appeared.

The main changes in the new edition have been concerned with Intra-thoracic Tuberculosis, and additional matter on certain of the newer therapeutic agents and some foodstuffs. It is in connection with the former that we read on page 118, in the smallest available type, that "Eumydrin" has been used in pyloric stenosis, but was disappointing in the author's hands. Is it too much to forecast that in the third edition a "better press" will be accorded this remedy—perhaps we may even see Rammstedt's operation mentioned as being of historic value!

However, the book in general is excellent, and space has been apportioned according to the importance of the subjects, rather than their "freak value." The views expressed are perfectly orthodox, and it was with the greatest of pleasure that we noted that at long last "Pulmonary Stenosis" has not been given as the commonest type of congenital heart lesion. Who was responsible for this shibboleth? Not Maude Abbott anyway.

This admirable book can be strongly recommended to the student, and would certainly not be amiss on the practitioner's shelf. On the other hand, it could not be called a reference book.

N.M.J.

Correspondence

Mr. Clement M. Spurling

To the Editor of the GAZETTE

SIR,—Having attended the concert in May on behalf of the Appeal Fund given by Clement M. Spurling, Mus.D., which you describe in your last issue as "by the highest professional talent of the musical world," I read the notices in the daily papers next day. They certainly mentioned his name, but attributed more to the Appeal Committee.

I thought, "Never mind; let us wait till the *Hospital Gazette* comes out—they will give a proper account of the whole thing." Imagine my surprise, therefore, when only two short paragraphs were devoted to the subject, and no mention of his name whatever.

Clement M. Spurling, Mus.D., has been in Nuffield House about eighteen times for minor operations, and is now preparing for a major abdominal operation. He felt such feelings of gratitude for the treatment he received at Guy's that in his kindness of heart he desired to do what he could to show it in a practical way. He thought then of the Appeal Fund, and not having the purse of a "Nuffield," but being a highly talented musician himself he got together some of his friends, heads of his profession, to give their services to that cause, and you know they did what they always have done, of their best to a good cause. As a sick man he spent many months in arranging, organising, writing, rehearsals for that concert, and himself taking a much too modest part.

From his bed in Nuffield House he has raised by his efforts £200 for the Appeal Fund, and I think we at Guy's, and through our *Gazette*, are not doing him justice in not mentioning even his name.

It is not likely to encourage others to help the Appeal Fund either.

Yours, etc.,

ALGERNON D. BRENCHLEY

(*Old Guy's man, and his father before him*).

South Lodge,
Champion Hill, S.E.5

(We most willingly take this opportunity of expressing our regrets that Dr. Spurling's name was inadvertently omitted in an account of a concert which was entirely due to his inspiration. We are sure that all our readers will be with us when we say how much his efforts on behalf of Guy's were appreciated.—*Ed.*)

Sport

The 67th Inter-Hospital Championships

THESE were held at Motspur Park on Saturday, June 18th, when Guy's retained their premier position by winning the Challenge Shield for the fourth consecutive year with 50 points from St. Thomas's 37 points and Bart.'s 35. The scoring is 5, 3, 2, 1 over 15 events and tug-of-war and relay race. The results will show the all-round nature of the team's performance, for they only failed to score in three events.

We understand that there was a record entry of 152 men from eight hospitals, and that our own total of 50 points is the highest ever at this meeting.

The best performances of the meeting were undoubtedly of Beck, of Bart.'s, who set up new figures in the half and one mile and incidentally beating Franks, the U.A.V. mile champion, in the latter event. Dunstan, of King's, equalled the record in the high hurdles and also won the 440 low hurdles.

Hanson, the Guy's secretary, ran two well balanced sprints to win the 100 yards and 220 yards. The 440 yards provided a surprise; Kagwa, of London, produced a tearing finish and caught Fletcher (Guy's) on the run in. Fletcher also ran third later in the afternoon in the half-mile; several coaches have expressed the opinion that this is his best distance.

Guy's have greatly improved in field events. Lagovio won the javelin and for the first time we saw the form he has shown in U.S.A. Enderby won the discus; he is a great stylist, and, in addition, scored points in 100 yards, weight and long jump. Blackburn won the pole vault as expected, but we did not see him at his best as his training has been limited by examinations. Douglas, Jones, Kynaston and Denton all scored points in their respective events.

The three miles was run off earlier in the week and resulted in a win for A. E. J. Etheridge (Guy's), who, knowing that his chief rivals Franks (St. Thomas's) and Beck (Bart.'s) were both capable of exceptionally fast finishes, ran the first two miles at increasing speed—first mile 4 mins. 54 secs., second mile 4 mins. 44 secs. Franks alone proved the only man to stand the pace, but cracked completely after two miles, leaving Etheridge to win as he pleased. Martin (Guy's) was beaten into third place by Beck's finish.

Mrs. Chapple graciously agreed to present the prizes. The arrangement of the meeting, admirably carried out by Mr. Stallard, the treasurer, the secretary, G. G. T. Fletcher, and the captain, A. E. J. Etheridge, while Mr. J. H. E. Winston and Mr. G. A. R. Winston handled the loud-speaker and surpassed themselves with a running commentary on the events.

RESULTS

100 *Yards.*—1. Hanson (G.); 2. Wallace (T.) 10.1 sec.

220 *Yards.*—1. Hanson (G.); 2. Walker (T.). 22.8 sec.

440 *Yards.*—1. Kagwa (L.); 2. Fletcher (G.). 51.2 sec.

880 *Yards.*—1. Beck (B.); 2. Hope (T.). 1 min. 57.8 sec.

Mile.—1. Beck (B.); 2. Franks (T.). 4 min. 27.4 sec.

Three Miles.—1. Etheridge (G.); 2. Beck (B.). 15 min. 33.7 sec.

120 *Yards Hurdles.*—1. Dunstan (K.); 2. Garrard (Mid.). 15.8 sec.

440 *Yards Hurdles.*—1. Dunstan (K.); 2. Lockton (T.). 57.2 sec.

High Jump.—1. Page (L.); 2. Powell (T.). 5 ft. 7 in.

Long Jump.—1. Ward (B.); 2. Lockton (T.). 21 ft. $11\frac{1}{4}$ in.

Weight.—1. Frazer (B.); 2. Craner (L.). 36 ft. 2 in.

Javelin.—Lagovio (G.) and Page (L.) (tie). 158 ft. $5\frac{3}{8}$ in.

Discus.—1. Enderby (G.); 2. Frazer (B.). 104 ft. $10\frac{1}{2}$ in.

Relay.—1. St. Thomas's; 2. Guy's. 2 min. 13.5 sec.

Tug-of-War.—St. Thomas's beat Guy's.

Princess Marie Louise Cup.—Beck (B.).

British Medical Association Cup.—Beck (B.).

Championship.—Guy's.

Final results were :—

Guy's, 50; St. Thomas's, 37; Bart.'s, 35; London, 27; King's, 12; St. Mary's, 6; Middlesex, 3; Westminster, 2.

Guy's Hospital Sports

IT was unfortunate that the weather should have combined with the last-minute arrangements to make the sports a rather tedious affair for spectators. However, those who wanted to run made the best of the bad conditions, and no doubt enjoyed themselves.

Etheridge confined himself to running in the 440 yards hurdles and inter-clubs relay for the cross-country club with the object of encouraging keener racing among those who have the depressing occupation of following him home in the ordinary course of events.

J. H. Hanson, in winning both sprints from Enderby, showed that the inter-hospitals records would be in danger this season.

G. G. T. Fletcher won the quarter-mile as expected, and later rather surprised us by winning the half-mile from D. H. Douglas, who had won the mile and finished third in the quarter. The result might have been different had they both been fresh. Enderby won the Clement-Lucas Cup and his best performance was undoubtedly in the long jump, which he won with 20 ft. 8 in. Two other competent wins were H. C. Martin in the three-miles and E. O. W. Jones in the 440 yards hurdles. The former promises to be as successful as his first string, Etheridge.

The afternoon concluded with the inter-clubs relay, which ended in a thrilling finish, the cross-country club winning owing to the swimming club being disqualified.

Cricket

GUY'S v. THREE COUNTIES HOSPITAL

THE Hospital took a fairly strong side to Arlesey on Wednesday, May 25th, and accomplished an excellent performance in winning by three wickets.

Three Counties decided to bat on a rain-soaked wicket, and, after rain had delayed the start to 12.25, Knight and Morey opened the bowling. The first pair, despite some aggressive work by Knight, proceeded stolidly to a score of 36 before a wicket fell. McClintock replaced Morey and bowled their captain with his third ball, and the Arlesey batsmen failed to shape to such an extent that the score was 57 for 6, and McClintock went to his lunch at this score, having bowled five overs for two runs and three wickets.

Lunch proved too much, not for the batsmen, but the bowlers, and the next two men added 35 before the last three wickets were taken for three runs.

When we batted, Haywood proved even more successful, taking the first four wickets at a personal cost of 15 runs. Morey decided to hit him off his length, but was well caught at mid-off in the process, and that meant 75 to win with six wickets to go. Birks and O'Gorman now came to the rescue, adding 50 invaluable runs. Their efforts, more particularly the latter's, were not unattended by luck, but it was a sterling performance all the same. But when O'Gorman was bowled, when seeming well set to knock off the runs, another collapse ensued, culminating in Wooldridge failing to respond very rapidly to a call for a quick third run by Birks. Seventy-nine for seven was not good with Haywood still bowling well, but McClintock managed to stay there while Birks went on his way to a praiseworthy 42. With one run to win, McClintock struck mightily, and watched the screen, behind the bowler's head, while the ball just eluded third man to reach the boundary.

After the match was over, they gave their change bowlers some practice. The only feature was a copybook defensive innings by Rushby, who added 50 for the ninth wicket with McClintock. Knight unfortunately did not receive a ball, but he had a nice walk to the crease and back.

Three Counties

P. G. Robinson, b. McClintock	14
W. Mitchell, l.b.w., b. Knight	14
G. Bircumshaw, st. Thomas, b. O'Gorman	11
E. Bircumshaw, b. Knight	1
P. R. Robinson, b. McClintock	0
E. Page, st. Thomas, b. McClintock	0
I. Ward, c. Knight, b. McClintock	16
A. Haywood, b. McClintock	10
G. Callingham, not out	18
R. G. Robinson, c. Hughes, b. McClintock	0
R. Taylor, st. Thomas, b. Knight	0
Extras	11
Total	95

Knight, 3 for 37; Morey, 0 for 16; McClintock, 6 for 25; O'Gorman, 1 for 6.

Guy's

A. C. C. Hughes, c. Ward, b. Haywood	9
I. E. McKechnie, b. Haywood	2
H. A. Thomas, st. Page, b. Haywood	5
L. G. Morey, c. Mitchell, b. Haywood	6
P. H. Birks, st. Page, b. Taylor	42
G. O'Gorman, b. E. Bircumshaw	19
S. N. Cole, c. E. Bircumshaw, b. Haywood	0
T. Wooldridge, run out	6
C. L. T. McClintock, b. Haywood	45
F. W. Rushby, c. G. Bircumshaw, b. Haywood	15
S. H. Knight, not out	0
Extras	14
Total	163

Callingham, 0 for 27; Haywood, 7 for 54; Robinson, 0 for 15; Bircumshaw, 1 for 29; Taylor, 1 for 24.

Guy's *v.* Old Wimbledonians (May 28th) was scratched owing to rain.

JUNIOR CUP

GUY'S v. BART.'S

WE looked confidently to the Junior Cup team to revenge us worthily for our narrow defeat the day before, but early events soon diminished our earnest hopes.

The bowling for a few overs was good, Rushby and Donner swinging the new ball appreciably. But after Wells-Cole joined Brown and began to attack the bowling it crumpled up, deteriorating in length and even direction. Wells-Cole took good care to profit by these and other lapses, one chance being dropped through hesitation, while at least five people who could have caught it pondered undecided.

The only redeeming feature of this display was the grand fielding of Lauder and the good work of Martin. Goodall, who was, of course, dropped before he had scored, made a rapid 29 before being brilliantly caught by Martin at cover, and 200 runs were on the board in 105 minutes for three wickets. Considering this, Guy's did well, despite further failures in the air, to dismiss them for 281. Donner was mainly responsible, though still over-pitching rather too often, though this was a welcome relief from the succession of long hops that were being served up from the other end; with no fielder at mid-wicket they were somewhat expensive.

But when they batted Guy's once again looked like a real side. Eustace and McKechnie started fairly well, but Fuller seemed to be the first batsman to appreciate the time factor against not overstrong bowling. He drove well, and it was sheer tragedy when he failed to obtain a sharp single when 49. Before Warner had been well caught at long-off, endeavouring to force the pace in fine style. It still seemed as if Platt might keep the game alive, but when he was bowled, 140 for 5 was not so good at all.

All seemed lost, but Wooldridge proceeded to score forcibly off anything loose, and only lacked support. This might well have been provided by Lauder, but he was unluckily run out, while backing up, off a hard drive from Wooldridge which Goodall deflected on to the stumps.

The end came at five past seven with Guy's still 82 runs behind.

Bart's

D. J. Brown, l.b.w., b. Wooldridge	26
M. Howell, c. Warner, b. Donner	8
J. Wells-Cole, c. Warner, b. Rushby	86
R. Whitmore, c. Martin, b. Donner	40
J. A. Goodall, b. Wooldridge	29
J. W. G. Evans, b. Donner	19
J. T. Harold, b. Donner	15
E. Evans, run out	29
L. McA. Elder, c. Platt, b. Wooldridge	3
O. I. Akroyd, c. Lauder, b. Donner	5
F. Hayes, not out	0
Extras	21
Total	281

Donner, 5 for 89; Rushby, 1 for 85; Hurst, 0 for 27; Wooldridge, 3 for 55; Platt, 0 for 25.

Guy's

T. Eustace, c. Hayes, b. Evans	17
I. E. McKechnie, c. Brown, b. Wells-Cole	17
A. Hurst, b. Wells-Cole	4
D. Fuller, run out	49
J. Warner, c. J. Evans, b. Elder	23
A. Platt, b. Wells-Cole	19
T. Wooldridge, c. and b. Howell	39
E. J. Martin, st. Akroyd, b. Elder	9
J. Lauder, run out	12
B. G. Donner, l.b.w., b. Howell	5
F. Rushby, not out	0
Extras	8
Total	199

E. V. Evans, 0 for 21; Wells-Cole, 3 for 54; J. W. G. Evans, 1 for 27; Howell, 2 for 27; Harold, 0 for 16; Elder, 2 for 36; Goodall, 0 for 12.

GUY'S v. WESTCLIFF

NO one seeing Guy's bat at Westcliff on Saturday, June 11th, could possibly have reconciled this performance with their Cup efforts; yet neither could anyone who saw Guy's bowl imagine how we got Bart.'s out for 173. This time, though, we were without Knight and Coffey.

As it was, two wickets were down for 13, but Moray and Chase played delightful cricket against some very steady bowling by Astell and Thornton, and they eventually added 120 runs. Birks also started in his own pleasant style, gathering runs as he went, only to destroy all our ideas of the inimitable Birks by striking V. J. Thornton on to the tramway three times in four balls. But the later batsmen did not provide much support, after O'Gorman had strode out a little too manfully, though Fuller made some nice shots in his 18. And at 4.45 Guy's declared at 298 for 9 wickets, made in 2 hours 25 minutes, which represented a very fair rate of scoring even on this delightful though small Chalkwell Park ground. There were now about 500 spectators seated in the Corpora-

tion's deckchairs, a pleasant contrast to the nine spectators seated on the Clubs' Union benches at Honor Oak Park for the Cup match.

Westcliff had 2½ hours exactly to make the runs, and they started well. Crabtree scored very fast, evincing a particular liking for Morey's bowling, and he made 74 out of 112 in 50 minutes before he was beaten and bowled by O'Gorman. O'Gorman and McClintock now kept the scoring down to about one run rather than two a minute, despite the eight-ball over, which did accelerate the game all right. Three wickets were down for 120, and when McKechnie caught Thornton at 173 the game seemed rather dead, though Rankin was now playing with more confidence. He had, incidentally, been very nearly brilliantly caught at silly mid-off before scoring. He and Hopkinson played on, and with 37 minutes to go they still required 100 runs to win. And after these they went. Granted they were helped by a couple of not-too-hard catches being put down, but it was a magnificent effort when they came to the last over needing only one run to win, which, of course, they got off the fifth ball, after a truly magnificent effort and a very entertaining game.

Guy's.—298 for 9 declared. (G. H. G. Chase, 57; L. G. Morey, 64; P. H. Birks, 75, not out; G. O'Gorman, 29.) Bowling—V. A. Thornton, 6 for 72.

Westcliff.—306 for 4. (H. P. Crabtree, 74; H. D. Rankin, 113, not out; R. D. R. Hopkinson, 51, not out.) Bowling—G. O'Gorman, 3 for 122.

GUY'S v. U.C.S. OLD BOYS

U.C.S. Old Boys.—222 for 7 declared. (W. Williams, 47.) Bowling—O'Gorman, 3 for 95.

Guy's.—159 for 8. (A. V. Hurst, 54.) Bowling—Wilson, 4 for 43.

GUY'S v. PINNER

ON Wednesday, June 22nd, Morey again won the toss, and a lackadaisical start to the third game of their cricket week was made at 12.20. For once this was not due to the Hospital's late arrival.

Darbyshire and O'Gorman opened, only for the former to play a forcing backshot into mid-off's hands at 9. Chase was not quite himself, but scored freely till bowled by Campbell. Morey struck this same bowler for a fine six over the trees at square leg, hit the next ball for 4, and was caught at the wicket off the next. We lunched at 86 for 3.

Afterwards O'Gorman continued well, and Thomas was excellently caught at mid-on after a deliberate 14. Wickets fell rather unnecessarily, till at 130 for 8 Hughes, who was making good use of his altered place in the order, was joined by McClintock. They were a trifle painstaking, and several "certain fours" were not made use of, but they added 71 before Hughes was not content with the rate of scoring and so was bowled by Pinner's seventh change. Donner then proceeded to outshine McClintock completely, to the tune of 18 runs out of 22, until McClintock retaliated by hitting Campbell for four successive fours, when Morey declared at 239 for 9 and 4 o'clock.

Pinner scored freely at first, until Odell was brilliantly, if dubiously, caught on the leg side by Thomas, but Whaley went on with powerful leg-side strokes, despite periodic showers of rain. The ball, too, was getting very hard to control, despite sawdust and towels. At 106 O'Gorman came on to bowl; he had previously delivered a few balls as a quick opening bowler, and immediately he had Whaley leg before, and down came the rain harder than ever. The game was abandoned at 6.15 and 106 for 2.

Guy's.—239 for 9 declared. (G. O'Gorman, 37; A. C. C. Hughes, 40; C. L. T. McClintock, 56, not out.) Bowling—G. L. Campbell, 4 for 83.

Pinner.—106 for 2. (P. F. Whaley, 73.) Rain stopped play.

Golf

ON Wednesday, June 15th, the competition for the President's Prize, kindly presented by Mr. Bromley, was held over the High and West Courses of the Moor Park Golf Club. The weather was very fine and, with the courses playing so well, some good cards were returned.

The President's Prize itself, for the best 36 holes scratch score, was won by J. C. Ritchie with 81 and 83=164.

The best return over the High Course was made by T. N. Praat with a score of 80—7=73 net, and over the West Course by N. T. Whelpton with 87—14=73 net.

Notice

THE THIRTY CLUB DINNER

The Thirty Club Dinner will be held on Saturday, October 22nd, at the Trocadero Restaurant. Notices will be sent to members at a later date.

Hospital Information, etc.

Notices

GUY'S HOSPITAL MEDICAL SCHOOL

Applications are invited for the Arthur Durham Travelling Studentship of the value of approximately £145. Copies of extracts from the Regulations governing the Studentship may be obtained from the Medical School Office.

Applications should be sent to the Dean, at the Medical School Office, on or before the 20th July, 1938.

T. J. EVANS,
Dean.

EXAMINATION FOR THE TREASURER'S MEDAL AND PRIZE IN CLINICAL SURGERY

June, 1938

The following awards have been made :—

L. Nancekievill, Medal and Prize.
R. D. Blachford, Certificate.

EXAMINATION FOR THE GOLDING-BIRD MEDAL AND SCHOLARSHIP IN BACTERIOLOGY

June, 1938

The following awards have been made :—

E. R. Davies, Medal and Scholarship.
P. H. Beales and W. C. Lawrence, Certificates.

GUY'S HOSPITAL DENTAL SCHOOL POST-GRADUATE COURSES

October-November, 1938

The following Post-graduate Courses will be held during the period October—November, 1938 :—

1. *Full Denture Prosthesis.*—Professor H. R. B. Fenn, L.D.S., D.D.S. A course of six sessions to be held on Mondays at 5.30 p.m., commencing on Monday, October 31st. Entrance fee, £10 10*s*.

2. *Inlays, Crowns and Bridges.*—Mr. W. E. Herbert, L.R.C.P., M.R.C.S., L.D.S. A course of six sessions to be held on Tuesdays, at 5.30 p.m., commencing on Tuesday, November 1st. Entrance fee, £10 10*s*.

3. *Chairside Bacteriology.*—Mr. A. Bulleid, L.R.C.P., M.R.C.S., L.D.S. A course of six sessions to be held on Wednesdays at 6 p.m., commencing on Wednesday, November 2nd. Entrance fee, £10 10*s*.

4. *Porcelain Inlays and Jacket Crowns.*—Mr. K. Hooper, L.R.C.P., M.R.C.S., L.D.S. A course of six sessions to be held on Thursdays at 5.30 p.m., commencing on Thursday, November 3rd. Entrance fee, £10 10*s*.

5. *Orthodontics—Diagnosis and Treatment Planning.*—Mr. F. Bocquet Bull, L.R.C.P., M.R.C.S., L.D.S. A course of six sessions to be held on Fridays at 5.30 p.m., commencing on Friday, November 4th. Entrance fee, £10 10*s*.

6. *Dental Radiology.*—Mr. H. M. Worth, L.R.C.P., M.R.C.S., L.D.S., D.M.R.E. A course of six sessions to be held on Saturdays at 2 p.m., commencing on Saturday, October 22nd. Entrance fee, £10 10*s*.

Applications for attendance at any of the above courses should be made to the Sub-Dean of the Dental School, Guy's Hospital, London Bridge, S.E.1, not later than October 1st, 1938.

Pass List

UNIVERSITY OF CAMBRIDGE.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

Easter Term, 1938.

PART I.

Surgery, Midwifery and Gynæcology.

J. P. Henry.

PART II.

Principles and Practice of Physic, Pathology and Pharmacology.

E. W. O. Adkins J. P. Henry
H. Stott

Papers by Guy's Men

Hern, J. R. B. Intrathoracic aortitis. *Med. Pr.*, 1938, cxcvi, 484.

Neustatter, W. L. Effect of poor social conditions in the production of neuroses. *Lancet*, 1938, i, 1436.

Ebsworth, J. D., and Others. Sulphanilamide for meningococcal meningitis. *Brit. med. J.*, 1938, i, 1362.

Exner, G. G. Minor dental emergencies in general practice. *Ibid.*, 1376.

Biddle, E. Aspirin poisoning. *Ibid.*, 1365.

Births

GRIEVE.—On Good Friday, April 15th, 1938, to Frances (née Boullin), wife of R. J. D. C. Grieve, of The Peak, Hong Kong—twins, a son and daughter.

Death

MULLINS.—At Grahamstown, Cape Province, South Africa, on June 15th, 1938, Reginald Cuthbert Mullins, aged 65. (Guy's, 1897-1901.)

Eds. { H.B.O.C. / C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

WE are writing about the College again.

Everyone knows that the *Gazette* has various bees in its bonnet; of recent years our two queen bees have been the rebuilding of the Children's Ward and the deplorable conditions of the College as it exists to-day. One of these insects has ceased to buzz, but the other has been making a worse noise as the years slip by. We have felt for years that our present indoor accommodation for students is so deplorable that it must be improved. Ample proof that we are not alone in this is afforded by a slow but steady stream of letters received from old Guy's men on this subject, and when the controversy was at its height in 1936 we published a letter of protest against the living conditions signed by no fewer than 228 students. With the exception of a few Colonel Blimps in our midst, there is almost a complete unanimity at Guy's that the present College should go.

Gradually over the last three years this conviction has been seeping into the public consciousness, and in February of this year the new Warden of the College called a meeting to consider the whole question. As a result a committee was appointed which will very shortly present its report; we have now every reason to believe that this report will strongly recommend the early construction of a new and up-to-date College.

Now, what will happen?

Who is to take the initiative for the next step? The report will be presented to the School Council, but this body has just undertaken at great cost the erection of a new Pathology Block, and thus its finances are under a heavy strain. It is therefore extremely unlikely that any initiative may be expected from it. The other body which might reasonably be expected to launch such an undertaking is the Hospital. But the Hospital at the present time has no available funds for this purpose. Nevertheless, initiative there must be, and it must come from those most interested in the realisation of such a project—in fact, from the students. God helps those who help themselves.

There are many reasons for saying that the right moment has come for the plan of rebuilding the College to be put into execution. If the students do nothing, we shall muddle on as we have always muddled, but now that there is a site between the Pathology Block and the Borough High Street, the psychological moment has arrived, and to let such an opportunity pass would be a most unfortunate mistake. Another argument for urgency is that it would be possible to erect this new building while the present College is yet occupied and thereby solve the difficult question of housing the residents during the transition period. And, further, opportunities such as this do not come frequently. If enthusiasm is raised and dissipated without result, it may be a long time before it may again find such expression.

We believe, then, that this is the time for action.

As we have said, the initiative must come from those who are most interested, namely, the student body. In the past, students of Guy's have shown the most extraordinary apathy towards many schemes which affected them most closely, but we feel that such an apathy is more apparent than real. What, indeed, can a student do if he wishes to voice his opinion? There is no method by which he can do so without acquiring an abnormal prominence which he might be anxious to avoid. Upon this important matter of a new

College, and upon many other questions in which students are vitally interested, there are no existing channels by which they can express their views.

We believe that such a lack could best be remedied by the formation of a representative student body, which would be composed of students only, who would not be hampered by the overawing presence of members of the Staff. Some such students' council should be able to elect members to the various existing committees for running student activities. However, it must not be thought that we disapprove of having a substantial representation of older and experienced members on the existing committees. When deciding how the Clubs' Union budget should be allocated it is necessary to think not only of the present generation of students, but of those to come. Such foresight is best found amongst those who are permanently attached to the Hospital. At the moment, however, we feel that the student's voice is not made heard at the deliberations of the various committees. Co-opted student members to these committees scarcely know why they have been roped in, and if they become articulate they do so merely on their own account, since they have no way of discovering what the body of students as a whole may think on any question. Such a state of affairs could be remedied by bringing into existence a students' council of the type we advocate.

To epitomise, we wish the Guy's student to have a greater voice in the conduct of his affairs and in order to achieve this the mechanism for rendering him articulate must come into being.

Unfortunately, in the meantime it is impossible for those concerned to know what the students wish in this important matter of the College. With regard to its possible construction, and leaving aside for the moment the question of finance, it is obviously of paramount importance to ascertain the answer to such a question, for instance, as to whether the students wish for residential accommodation to be supplied to them. In order to find out exactly what the student body thinks about this and other questions, we are circulating this week a questionnaire to every student at the Hospital, whether he is a member of the Clubs' Union or not. The results of such an inquiry will be of inestimable importance to those who are undertaking a study of the whole question, but these results will merit serious consideration only if they represent the views of the great majority of students. To receive a small number of replies or to have the questionnaire treated frivolously would not only imperil its purpose, it might mean the end to any efforts to improve the student's lot at Guy's. To make this referendum significant, therefore, it is essential that every student should give the whole matter his serious consideration and, having done so, should send us his reply.

This is the first time to our knowledge that the *Gazette* has undertaken to organise a "straw vote," and we cannot say that for any lesser purpose we should embark with enthusiasm upon such a venture, but for a new College we will lay any prejudices aside in this matter and will, if necessary, canvass the opinion of some five thousand old Guy's men scattered throughout the world. This may be necessary in fact.

Meanwhile concerning the present questionnaire, we would stress two points. Firstly, it must not be thought that we are asking students to subscribe to any particular view. We have tried to avoid asking questions which themselves suggest an answer. Secondly, we would state that all answers will be treated as confidential.

Now to return to the College..

A new building would certainly have to embody many features which do not exist in the present one. At the moment there is provided one sitting-room for the use of 800 students, to say nothing of the Junior and Senior Staff. There is no quiet reading-room; there is no library worthy of the name; there is no special room for such indoor games as billiards, ping pong and darts. The restaurant accommodation is such that the majority of students prefer to eat outside the Hospital, rather than wait their turn. There are, in fact, no amenities of comfortable club life. It is a remarkable fact that, although the student spends five days of his week in and around the College, while only two half-days are devoted to sport, yet 78 per cent. of the Clubs' Union budget is devoted to sporting activities and 15 per cent. only is spent on the Club. This strikes us as a grossly unbalanced ratio, but it may, for all we know, meet with general approval, and we are raising this point in the questionnaire. It is perhaps difficult for students to visualise what a new club would mean to them. There would, of course, have to be on the spot squash courts, a modern gymnasium and, in all probability, a swimming pool, apart from a restaurant and snack bar of reasonable size, a smoking-room, library and accommodation for indoor games.

Now, where is the money coming from for such a scheme?

The amount involved—probably in the neighbourhood of sixty or seventy thousand pounds—would seem unattainable. We have made some inquiries as to the students' clubs attached to other hospitals and as to how these were financed.

The results are illuminating. Bart.'s will shortly open a new students' hostel; it will house about seventy students and cost some seventy thousand pounds.

The Westminster Hospital have recently built new accommodation for its students, which includes among other attractions a bar. St. Mary's has also opened new student club quarters, a large swimming bath and a garage for fifty student cars.

The London Hospital, however, provides the best example of what can be attained by student initiative. Their new hostel, which is entirely managed by the students themselves, cost thirty-seven thousand pounds and includes residential accommodation for seventy students, who pay from 35*s.* to 40*s.* a week for their board and lodging. Twelve thousand pounds of this cost was raised by London Hospital men. Since their numbers are less than half of our own, an index is provided as to what could be done at Guy's by a similar drive.

There is, therefore, not the slightest doubt the a new College at Guy's could be built and financed if the will is present. The initiative, we repeat, must come from the students. There are over 5,000 Guy's men scattered throughout the British Empire. We believe that a concerted drive amongst present students and old Guy's men would enable a large sum to be raised. It would be obviously unfair to ask many of the present students who would never see the fulfilment of such a scheme to give a large donation out of their meagre funds; however, we believe that every student would be willing to contribute something, particularly if the donation were spread over some years.

Apart from donations, the students may wish for a larger share of their annual subscription of five guineas to go towards providing better club accommodation. We have asked this in the questionnaire.

Finally, we are sure that both the Hospital and Schools would in due course do everything in their power financially to help such a scheme, for they are vitally interested in the welfare of the students. But no such help, we predict, will be forthcoming until the students themselves have made the first move.

So we come to the core of the matter. Do the students want a new College, and are they willing to help finance it?

If the reply is favourable and if the scheme is approved by the authorities, it will be necessary to form an Appeal Committee to raise the money, and the *Gazette* will do all in its power to help further such a scheme.

Gentlemen, we have had our say; it remains for you to have yours.

COPY OF QUESTIONNAIRE

Addressed by the Editor of the "Guy's Hospital Gazette" to all Guy's Students

STUDENT REPRESENTATION

1. Are you satisfield that you get adequate representation upon the various committees representing student activities? .....
2. Are you in favour of the formation of a Students' Council of members elected from each year which, by being in touch with the main body of students, would be able to correlate and make heard the wishes of students at the Hospital? .....

FINANCES

3. Are you a member of the Clubs' Union? .....
4. Whether or not you are a member, are you satisfied with the existing distribution of expenditure as set forth in the Revenue Account of the Clubs' Union, 1936-37, published in the *Gazette* of June 4th. In other words, are you satisfied with the way the subscription is being spent? .....
5. This expenditure is epitomised on a percentage basis below. If you consider any change desirable, indicate in the right-hand column how you would allocate the distribution of expenditure.

	Present allocation.	*Suggested allocation.*
	per cent.	*per cent.*
Sport	24	
Honor Oak Park	34	
Capital expenditure, principally upon Honor Oak Park	20	
Gazette	7	
Club	15	
Total	100	100

6. Do you play games regularly? .....
   Occasionally? .....
   Which game? .....
   Regularly? ..... Occasionally? .....

A NEW COLLEGE

7. Do you want a new College? .....
8. Do you consider that a new College should incorporate living accommodation for students? .....
9. When you came to Guy's, would you have lived in an up-to-date students' club of the type described in "Passim" had it cost you the same amount as you spend at present on living? .....
10. If your answer to No. 7 is "Yes," are you in favour of making a big drive amongst students and old Guy's men to raise a fund to enable the new College to be built? .....
11. Would you be prepared to covenant to give 10*s.* a year to this fund to be made up finally to £5 some time after qualification?

    .....

    If not, how much? .....
    (Your answer to this does not, of course, constitute a pledge in any way.)
12. Apart from the financial aspect, are you sufficiently keen upon this project to give your support to its fulfilment? .....
13. Have you any questions, suggestions or ideas on the subjects in this questionnaire? If so, state them .....

    .....

    .....

Signature .....

Copies of the questionnaire may be obtained in the Wills Library, the *Gazette* Office, or from the College Porter. The completed form should be returned to the *Gazette* Office, Guy's Hospital, S.E.1, or should be left at the Front Lodge addressed to the Editor. The contents will be treated as confidential matter, and will not be quoted, but it is essential that the student's name should appear on the form.

Obituary

DR. R. C. MULLINS

MOST Guy's men of the late nineties will remember R. C. Mullins and be sorry to hear of his death, which took place quite suddenly on his son Geoffrey's farm at Highlands, near Grahamstown, on the night of June 16th, 1938. I practised for nearly thirty years in South Africa and knew him intimately. A better friend man never had.

He came to Guy's from Oxford in 1897 with a reputation as a rugger forward, having gained his Blue and been a member of the English team which toured South Africa in 1896. He was a prominent forward in F. C. Wetherell's XV, which brought the Hospital Cup back to Guy's after many years in 1898, and was himself skipper of the victorious XV the following year.

He took his B.M., B.Ch. (Oxon.) in 1900, D.M. a few years later, and left Guy's after acting as house surgeon to Mr. Jacobson, to become a civil surgeon during the Anglo-Boer War. I met him in Pretoria, when he was attached to the Yeomanry Hospital. He settled soon afterwards in partnership with Dr. Dru Drury at his native town Grahamstown, where he continued to practise until his retirement about a year ago, with the exception of a period of war service in France with the South African forces, from which he was sadly recalled by the serious illness of his only daughter, who died shortly after his return.

Grahamstown is the Cathedral City of the Eastern Province of the Cape, and principally an educational centre with numerous schools, and the seat of Rhodes University. It was there that his parents had done a great missionary work and reared a splendid family of boys and girls. Their delightful happy home, with its hearty welcome to an ever-increasing circle of friends, was to men from overseas mindful of Old England a joy and inspiration in South Africa. It is little wonder that Cuthbert, brought up in these surroundings, was deeply attached to his home, and eminently well fitted there for the life he had chosen as a medical practitioner. The partners conducted a large and responsible general medical practice in town and country districts where they needed to be versatile; the greater share, however, of the major surgery fell to the lot of the senior partner.

I think perhaps his main interest was the advancement and welfare of his old school, St. Andrew's, which deservedly holds a high reputation. He was the school doctor, keenly watching the lads develop during their school days, always interested in their games, especially rugby football, which he followed with an enthusiasm that never flagged. A man of sterling character with a kind-hearted lovable nature, somewhat diffident of his own capabilities in spite of his soundness, he was

naturally beloved amongst the people, both Europeans and natives, whom he served. He would at times bubble over with a quaint humour that made him a most congenial companion. I had the good fortune to visit him in his new home on the farm during a short visit to South Africa early this year. He was then apparently quite as fit to play a round of golf or climb the hills round the farm as I was, and I little realised that he would leave us so soon.

He leaves a widow and four sons to mourn his loss, the youngest son, M. R., is studying medicine at Trinity College, Oxford, and will, I hope, enter Guy's in a year's time to complete his studies in accordance with his father's wish.

K. B. ALEXANDER.

The Unexpected in Surgery

A Clinical Lecture by Nils Eckhoff, Esq., M.S., F.R.C.S.

GENTLEMEN,—You may think I am going to tell you why it was that Dr. Ivory found himself in difficulties in his operation described in "The Citadel." It is not, however, my object to relate these dramatic occurrences to you, and, for the matter of that, none of us can explain exactly what sort of operation he thought he was performing. The only instance of a similar drama that I can recollect is that of a man who ran a chisel into his arm in front of the wrist, and thereby divided most of the tendons and big nerves. These were sutured. Some weeks later he presented a red swelling, into which an incautious Out-Patient Officer plunged a knife, with the result that the blood shot to the ceiling. This was a traumatic aneurism of the radial artery.

I am more interested in telling you about certain post-operative complications, and I shall deal at first with those that are largely unexpected, marring an otherwise perfect convalescence.

PULMONARY EMBOLISM

Pulmonary embolism is, without doubt, the most dramatic of these. Mr. Atkins has recently published an excellent treatise on the subject in the January, 1938, issue of the *Guy's Hospital Reports*. The characteristic story is that of a patient otherwise recovering satisfactorily from an operation, only to be suddenly stricken somewhere about the tenth day with intense pain in the chest, urgent dyspnœa, and a sense of impending death. Only too often these premonitions are accurate. At post-mortem a large clot is found in the pulmonary artery or one of its main branches. The source of origin of the clot has concerned surgeons and pathologists for centuries. Most of the evidence goes to show that the clot arises in one of the large veins draining into the inferior vena cava, namely the iliac, femoral, saphenous or hypogastric veins.

Thrombophlebitis occurs as a post-operative complication in about 1 per cent. of abdominal cases, and is not particularly increased in gynæcological operations. It is, however, rather higher in prostatic cases. It has been suggested that clotting may extend backwards from the inferior epigastric veins, but there is little evidence to support this.

Clotting is more common in the left common iliac vein than in the right, but there is no greater tendency for the clot in the left side to break loose and form an embolus. The left common iliac vein is crossed by the right common iliac artery, and this may explain why clotting is more frequent here and may also explain why release of the clot is not especially common. Clotting in varicose veins is an infrequent cause of embolism—the reason being that these veins are tortuous and that there is frequently an inflammatory factor superadded, which causes the clot to adhere to the wall of the vessel.

The factors that govern post-operative clotting appear to be: diminution in the rate of flow through the big veins, which is exaggerated in the Fowler position, and in any condition of post-operative distension; and diminished respiratory excursion. There is also a rise in the blood platelets between the sixth and twenty-first post-operative days, with the maximum on about the tenth day, and Brock (*Lancet*, 1933, 1688) had the interesting experience of discovering thrombosis on the actual day that the platelet count was highest in a patient upon whom he was doing daily platelet counts.

One further point of interest is that clotting is relatively rare in thyrotoxicosis.

All these points seem to imply that concentration of effort in the direction of maintaining a steady venous return to the heart should be helpful in preventing post-operative thrombosis. One is always suspicious of the patient who lies immobile

in bed after any operation and prefers to see him —in fact, encourages him—to move his limbs about from the first moment. The use of a knee pillow encourages laziness, and at the same time probably causes pressure on the veins and delay in venous return. It is, of course, difficult for the patient to sit in Fowler's position without a knee pillow. There are special beds designed to meet this need, which are probably less harmful, but at the same time it is probable that Fowler's position is used much more frequently and for a longer period than is necessary.

There are surgeons who tell me that their patients are turned out of bed the day after operation, and that they have never had a case of thrombosis since this practice was started. I personally try to get patients out of bed as early as possible, but cannot believe that it is advisable to go to such extremes.

When the symptom complex has developed, there is little time to consider details of treatment. Some patients die in a few minutes, while those who survive this time stand a fair chance of recovery.

You will probably know that Trendelenberg has devised an operation for the removal of a clot from the pulmonary vessels, and this has been carried out in a number of cases with success. The decision as to the necessity for an operation must be taken very quickly and the operation executed expeditiously. It is difficult to be sure in the cases that have survived these operations whether they would have done so had they been left alone. Oxygen, amyl nitrite, coramine and other drugs suggest themselves for the emergency.

OTHER RESPIRATORY COMPLICATIONS

Post-operative pneumonia is now very rare, and forms less than 10 per cent. of all post-operative complications. I do not want to say a great deal about it to-day. It is treated on the lines of any other pneumonia. It is, of course, a very serious complication and is quite likely to lead to the death of the patient. I must also mention abscess of the lung, in which a pus-containing cavity is found in the lung and foul-smelling sputum is coughed up in large quantities. This is due to the inhalation of infected blood clot or other septic material, and is avoided nowadays by packing off the pharynx in all operations on the upper respiratory tract, when this danger exists.

More than 90 per cent. of post-operative chest complications are due to what is known as a " collapse of the lung " either " lobar " or " massive," depending upon the degree of lung involvement. This condition is due to plugging of a bronchus with thick, viscid secretion. A great number of patients after operation have a small amount of bronchitis, which rapidly improves, but it is not difficult to visualise the formation of a plug which will block a smaller or larger bronchus. The portion of lung cut off becomes airless and shrunken. This is revealed by displacement of the mediastinum and elevation of the diaphragm in an X-ray picture. (The condition is sometimes bilateral, which makes interpretation less easy.) Clinically, shifting of the mediastinum can be detected by the position of the apex beat, while dullness, immobility and absent sounds are found over the portion of lung involved. There is dyspnœa, cyanosis, increase in pulse rate and temperature (up to 101° or more), and the most striking thing is that all these symptoms are quickly relieved when the bronchial plug is coughed up. The condition is commoner after laparotomy and herniotomy (13 per cent.), thyroid operations (7 per cent.), while after ordinary operations the percentage is as low as 1. It is twice as common in males as in females; commoner in upper abdominal operations and those in which sepsis is a feature. It occurs with spinal and local anæsthesia just as often as with ether. The treatment is to avoid tight abdominal binders, which restrict movements of the abdomen and lower ribs; to avoid excessive morphinisation; to encourage change of position in the early days after operation; and if the symptoms of the condition appear, to turn the patient on the other side, flex the knees and encourage vigorous coughing, while the wound is supported. Inhalations of CO_2 are of doubtful value, but sometimes stimulate vigorous breathing, which may lead to coughing up of the plug.

ACUTE RETENTION

Acute retention is an unfortunate occasional complication of certain operations, particularly operations for hæmorrhoids and hernia, and is a regular complication of operations for the removal of the rectum, in which the nervous mechanism of the bladder is upset. After this operation a catheter is tied in the bladder as a routine. In other instances when this complication arises it may be necessary to catheterise the patient until normal micturition is established. Recently the use of Doryl and Esmodil has rendered catheterisation less frequent. In old men acute retention after an operation may indicate enlargement of the prostate, and it is not infrequent for these symptoms to be precipitated by simple operations, such as for hernia. This is only one of the reasons why operations for hernia in old men should be considered very carefully before they are carried out.

STREPTOCOCCAL INFECTION

I see a number of cases of streptococcal infection following straightforward operations in the fever hospitals, where they have been transferred from general hospitals. There was recently a case at Guy's where a child had an operation for hernia and died within forty-eight hours of virulent streptococcal infection. Some time ago I performed a cystoscopy on a man and passed a catheter some five centimetres up the ureter to identify the position of a stone which had been seen in a previous radiograph. He died within forty-eight hours with a sore throat and streptococcal septicæmia. At the post-mortem it was discovered that not only was there streptococcal pyonephrosis, but also severe streptococcal colitis. I operated on an old woman of seventy for acute appendicitis, and she developed streptococcal infection of the abdominal wall, which nearly cost her her life. I have recently seen a most remarkable streptococcal breast infection, which resulted in the loss of the skin of the whole breast. This was subsequently remedied by skin grafting. In some of these instances the streptococcus is present in the patient before the operation, but in others I think there can be no doubt that it gains entry at the time of the operation. Factors which are always called into question are the sterilisation of dressings, instruments and catgut. In most cases these are blameless, and the recent Home Office regulations concerning the latter have rendered infection from this source unlikely, but what will always be a source of danger is the risk of droplet infection from the operator's mouth or nose, or from that of his assistant. A certain number of people have a virulent streptococcal condition of their naso-pharynx without knowing it and without having any symptoms. It is very important to cover the mouth and nose with a thick mask, and evidence has been produced recently to show that where talking during operation is rigidly excluded, post-operative infection is greatly diminished.

Prontosil has undoubtedly reduced the dangers of streptococcal infection, but at the same time we must regard them as the most awful calamities.

GAS GANGRENE

In 1930 I collected twenty-three cases of gas gangrene which had occurred in the hospital during the six preceding years, and eleven of these occurred in non-accident cases. (*British Journal of Surgery*, Volume XVIII, No 69, page 38.) I was particularly interested in those cases which had followed operations for appendicectomy, herniotomy, enterostomy, amputation, plating of the radius and ischio-rectal suppuration. Since that time I have seen a very instructive colour film of gas gangrene infection following injections for hæmorrhoids, and have heard of a case where it followed an injury to the finger against another man's teeth in a street brawl. These are remarkable cases and indicate once more that we must constantly be aware of the presence of organisms which are around us at all times.

Tetanus has similarly occurred after operative procedures. Catgut has been blamed in the past, and there is a recent case which recalls an instance at Guy's many years ago when tetanus bacilli were injected accidentally in an emulsion of gum.

HÆMORRHAGE

I do not propose to detain you long in the study of post-operative hæmorrhage, for it has been dealt with in a recent lecture by Mr. Atkins. It is definitely uncommon, except in jaundiced patients, in infections, and in certain special operations, where adequate steps have not been taken to prevent this complication at the time of the operation.

VOMITING

A certain amount of vomiting still occurs occacionally after anæsthesia. It is without question infinitely less common than it was a number of years ago. In some instances, however, vomiting continues and becomes progressively more violent, and in those cases, barring genuine obstruction, we have to consider the possibility of acute dilatation of the stomach. A great deal of air is frequently swallowed after operation, and this, combined with excessive secretion from the stomach wall, may lead to remarkable states of distension in the stomach.

Excessive distension of this organ will tend to force the small intestine down into the pelvis, which in turn, by traction on the superior mesenteric vessel, may compress the third part of the duodenum and make the symptoms much worse and the condition more complete. If recognised early and dealt with by duodenal aspiration—the patient being placed as nearly as possible on his face with the foot of the bed elevated—the symptoms usually pass off.

(*To be continued*)

NOTICE

The next instalment of Mr. Ogilvie's diary will appear in the issue of July 30th.

In China

Third Dispatch from Our Special Correspondent

I RECENTLY made a trip from C—— across the Japanese lines to a place called H——, north of the Yellow River, and as it was full of interest for myself, I thought it might be of some interest to your readers as well.

It was just about Easter time and we had been working fairly hard in the hospital for some weeks without ever going out of the compound, so that we were very glad when the Superintendent said to us one day, " Why not take a few days off and get right away? " We accepted with delight, and as we knew someone who was going north across the Japanese lines, and, as far as that goes, across the Chinese lines, we asked to go with him, and our request was granted.

We started out one beautiful April evening, at 6.30 exactly. There were three of us, with bicycles and a little spare clothing and one rug between us. Having arrived down at the station, one of the party, who has been out in China for a considerable time, and knows the ropes like the back of his hand, marched us across several tracks of the C—— Junction and hailed a locomotive driver, and in a few seconds our passage up to the Yellow River Bridge was all fixed up. It was merely a matter of scrambling on to a truck and hauling the bicycles up after us, and our places were then " booked." The train was just a few trucks joined on to a little stumpy engine which was going up to the bridgehead to take up some supplies.

We had not been on the train more than a few seconds when our leader said that he had not got the required pass as the local police had made some difficulties at the last moment, but, saying that our visiting cards would be adequate, he turned to me and said, " You have brought yours, have you not? " Well, as a matter of fact, I had not; only that day had I received them from Hankow, and had not yet got into the habit of presenting them as do the Chinese. I should explain that a visiting card in China counts much more than does any passport, and whereas a passport might be examined, a visiting card would expel all doubts.

Here, then, was the first difficulty—no official pass and one member without the precious card. However, just as the train was moving out, along came a dozen or more coolies hotly pursued by as many soldiers. The soldiers required to get into the same truck as ourselves, and did so as the train was moving. The coolies struggled to get the things, which belonged to the soldiers, into the truck as well, so we naturally enough gave a hand, and hauled on board huge bales of white cloth, four-gallon tins of petrol (no light weight) and rolls of lead-covered wire, and all was safe aboard as the train had gathered speed.

The party of soldiers consisted of a commander and a dozen or more other ranks; all were armed well, several had hand-grenades of the " potato-masher " type sticking out of their belts, others carried sub-machine guns (horrid looking weapons), others merely had rifles. They were a guerilla band, about whom so much has been heard; they had just completed a visit to C—— in order to obtain a few supplies and money to carry on their work. There was the man with the envelope held tightly under his arm containing the the money and the gentlemen with the sub-machine guns were his guard.

Where we came in so well, though, was the fact that we had the unfailing thanks of the commander for helping him on to the train with his " goods," and in course of conversation we told him that we wanted to get across the Yellow River, and on the presentation of a card he had it all fixed up for us, for he and his party also were going to cross the river.

Well, we sat on the floor of that open truck for ninety minutes while the train travelled a few odd miles, and at last arrived at the North Terminus, which is some half-mile from the Yellow River Bridge, which was destroyed by the retreating Chinese when they thought that the Japanese were going to cross at an early date. The whole of the south bank of the river is lined by high hills, and these contain a great number of caves, in which people make their permanent homes. We, however, decided that we would not sleep in a cave that night but in a Chinese inn. I think we took the only one there was; anyway it was a most undesirable place. The whole abode was about the size of a medium-sized garage, and while we were sitting at a table outside eating eggs and drinking tea (which I was quite under the impression was boiled water), one of the others said, " We are sleeping in the loft! " I thought he was making some wisecrack, because, quite honestly, I could not see that there could be a loft as the whole building was only about ten feet high. Anyway, sure enough we were sleeping in the loft, and when the time came the " proprietor " climbed up a little ladder to see that everything was " all right." As it happened, everything was

all wrong, for there were four other members of the household sleeping there, but they were pulled out by the scruffs of their necks. We were lent several quilts, which we were assured had been used only three times before (I think they must have meant three thousand), and up we went for the night. Only the person in the centre, where the roof was highest, could sit up; the rest tried to disrobe a little, which was about as easy as getting out of a strait-jacket, so cramped was the space. We spread the one and only rug on the bamboo floor as a sort of bug insulator, but no sooner had we laid down our heads than all sorts of vermin began to get busy, especially on the thigh that overlapped the edge of the rug. Our tortures were added to by huge quantities of fumes from the charcoal fire, which had no chimney, swirling around our heads in a vain endeavour to percolate through the roof. There we lay all night, sweating from the heat caused by the presence of so many humans in so small a place, as the floor down below was littered with humanity.

Early morning brought slight relief. The charcoal fire had gone out, an early riser had left the door open, and the bugs had eaten their fill. It was glorious to get out into the open air of a cool morning, and after a breakfast of some other egg concoction and some millet porridge, we were on our bicycles and away on the second part of our journey.

We rode right through the Yellow River Bridge tunnel at the side of the track, with one hand on the brick-faced side wall so as to keep on the beaten path, because we had no lamps and the tunnel was pitch black. On reaching the other end we came to what remained of one of the finest bridges in China. Several of the central piers of the lovely structure had been blown to pieces by the Chinese to hamper the enemy, and the spans to the south of the damaged piers were being dismantled and the ironwork sent south so that as the Japanese bomb other bridges they could be replaced by those spans taken from the bridge we saw before us now. The iron was too valuable to leave behind.

We rode almost due west against a powerful head wind, which blew clouds of sand into our faces, along sandy paths all bumpy and rutted where straying from the narrow way meant a spill. The high hills, which border the south bank of the Yellow River, lay on our left, terraced and cultivated in places, and all fresh and green in their spring growth. Occasionally we would pass an old temple or ancestral grave.

At last we caught up with the party of soldiers whom we had met on the train the night before, their goods now on barrows, the greatest method of transport in China; barrows, not as we know them in England, but great wide heavy things with the handles so far apart that a broad-shouldered man can only just reach them, taking the weight of the huge load with a band across the shoulders and straining to keep the thing balanced. Most of the propelling is done by the man pulling in front, or a poor half-starved donkey urged on by a little boy with a stick, and the whole accompanied by that squeak that only a Chinese wheelbarrow can make. Now we dismounted and walked with them along the sides of the wheat fields, which here grew sparsely because the owners did not deem it worth while manuring the ground as the soil was so sandy that the return from the land was a gamble anyway. The barrows creaked along with the coolies sweating behind them. Now we met more difficult obstacles, because all sorts of earthworks had been prepared to stop the advance of the Japanese. Trenches, barbed wire, tank ditches—all had to be negotiated by the barrows and ourselves. The method of the former to cross the trenches was to run the barrows straight into the trench and then by superhuman efforts to lift them out of the further side. When we arrived at the south bank of the river, where we were to cross, many of the tins of petrol were the worse for their travels and were leaking badly, but multiple holes were stopped by the soldiers with adhesive plaster.

To the north of us now lay the Yellow River, a wide, muddy expanse of water whose opposite bank it was difficult to see.

After a little delay we entered one of the three junks that were moored to the bank. Most primitive but effective craft these, hardly made out of anything but wood, and by most subtle carpentry; even the pulley blocks were wood, but they worked so well and each man was so versed in the art of sailing to the north bank that all went merrily as the marriage bell. We had to drift a long way down river because of mud banks in mid-stream, but our worthy captain got us across to the place of his choice, after the remainder of the crew had pushed frantically for the last fifty yards on either side of the boat with huge poles in order to keep us from grounding prematurely. We carried our bicycles over fifty yards of slimy mud to the shifting sand of the north shore and left the crew pulling their craft up-stream by means of an immense length of rope attached to their mast-head. We battled along over two miles of sand against a strong westerly wind, which filled the air with so much sand that visibility was poor at twenty yards. At last we arrived at the north dyke, on which we could ride almost to our destination, fifty miles away. This barrier to the

flood water is a road thirty feet high and as many broad at its summit, and in normal times makes an ideal way; unfortunately, it had a huge ditch and mounds dug every mile across its length, presumably to stop motorised Japanese columns from making a quick advance. It certainly stopped us a little, just at a time when we needed all the energy we could muster, because it was two o'clock now and we had the greater part of our journey before us. Mile after mile we rode with fields of green corn waving on either side in the mid-day heat. Coolies worked in the fields with the now hot sun beating down upon them; some worked in the paddy fields with the mud up to their waists, others—too poor to employ a plough—dug their few acres of land by hand; others at a well drew water with a bucket, emptying it into a small trench time after time so that it eventually flowed round the roots of their crops, having travelled by devious ways across earthen channels to its final resting-place.

We had now reached the stage when we thought that cycling was not quite such fun. Hungry, thirsty and perspiring freely, we were not encouraged by the half-gale that was blowing against us. Occasionally we would drop down from the dyke into the fields below, in order to cut off a huge sweep of the road and save a little distance and energy.

At last, after three hours' riding, we came to the Chin River, and here it was open to discussion as to whether we should attempt to cross it and so avoid any contact with the Japanese, since our passes seemed to leave something to be desired, or whether we should go straight ahead and risk not meeting anyone. The former view won, chiefly, I think, because the thought of a bathe was too great an attraction. We chose a spot where we could wade across and with the water up to our armpits made the other side with neither bicycles nor baggage being submerged. We tarried a little to have a final plunge, and resumed our journey refreshed by this most welcome break. However, the effect was rather spoiled by a tyre going flat shortly after and by our having to sit in the broiling sun and mend it. The Chinese in whose village we were showed us their usual courtesy and brought us cold water in which to dip the tyre and hot boiled water to drink. The whole village turned out and gathered round to watch. One of the onlookers was so struck by the ease with which a rubber patch would mend a hole that he brought along a small rubber shoe that belonged to his small son and this we patched also, which was considered ample payment for what we had received at their hands.

Along we went again, and soon after this we got into what was called "Japanese occupied territory." There was no method of determining why it was Japanese except that there were no Chinese. In fact the first reminder of the fact that there was a conflict in progress was when, an hour later, we were stopped on the road by a group of uncouth individuals. Red Spears they were, which is a fanatical body of fighting men who, before a battle, work themselves into a frenzy and throw themselves at the enemy with reckless disregard for their own safety. Fortunately they were in no frenzy when we met them, and on giving the explanation that we were doctors and proceeding to W——, they let us pass. These men have been harassing the Japanese quite a lot, and whereas they were only armed with the spear before the war, they are now armed with more modern weapons. They seem to have little idea of military tactics, however, and lose vast numbers of their men in consequence.

It was now getting dusk and we still had a considerable distance to travel; the road was getting very poor, time and again we would meet a sandy patch which would stop our bicycles altogether. We had eaten nothing since the early morning except a few peanuts and chocolate, and the wind, which was almost a gale, had taken every ounce of energy out of us, so that we had to make frequent stops, and so thirsty were we that we began to drink any water that came to hand, including that from the Chin and Yellow Rivers. It was about this time that one of our number had another puncture, the result of a most pernicious type of thorn, rather like a very small porcupine, that grows in profusion in that part of the country. The victim insisted on the remainder of us going on as it was rapidly getting dark, and we had the most risky part of the journey ahead. The Japanese were in possession of the town we were making for, and we knew we should have to skirt it to miss them.

We now started to ask everybody we met how far it was to our destination, so that we might be cheered by the thought of only a few more miles. Unfortunately, each person thought that it was a different number of miles, and according to some of the answers we must have been travelling backwards. It was at about this time that things were beginning to get a trifle eerie and we suddenly stopped in our tracks when a voice rang out in the darkness. We almost fell off our bicycles, and the fellow with me spoke some well-chosen words in Japanese to allay the fears of a sentry, but there was no reply forthcoming. It was only after a few minutes that what we thought had been a challenge from a sentry had come from two people

who were fishing on the side of a stream, so we continued, all feeling a little sheepish.

By this time it had become pitch dark, and at last in the distance we saw the lights of the compound that we were making for. We were still riding along on the bikes when we suddenly came across a huge tree that had been felled across the road. Having overcome worse obstacles than this we took this in our stride also, and pulled and pushed our bikes through the branches and arrived on the other side with a clear road ahead. Perhaps if we had been less tired we might have stopped and wondered what it was all about, but we were dead-beat at this time and nothing mattered. No sooner had we gone a further half-mile than another huge tree stopped us, and behind it another with the branches all pointing our way; moreover, on one side was a high wall and on the other a sort of earthworks. However, no one was going to stop us now, and again we pushed and pulled, every twig seeming to do its best to stop us. No sooner had we reached the other side than a challenge rang out; there was a most unpleasant noise of rifles being loaded, and then a deathly silence. We quite thought we felt iced water running down our spines, and then from the darkness appeared a Japanese with rifle pointing our way, and when he could see us he stopped and apparently asked what the devil we thought we were doing. Our friend told him in broken Japanese to the best of his ability. If it had not been that there was a huge tree behind us, my one great desire would have been to bolt, but after a good deal of conversation, which seemed to me to be very one-sided, they took us along to their commanding officer, who was kindness itself. We sat down on his bed by the glow of a candle. He offered us cigarettes and then asked a few questions, having apologised for his English, which seemed to us perfect.

Our explanations, I am afraid, did not approximate very closely to the truth, but he was quite satisfied, and after apologies from both sides we departed. The sentries then carried our bikes over several more obstacles, and we left after my friend had asked the commander to lunch the following day at the compound. I had not heard of these sort of tactics during war-time, and thought that we should be on rather sticky ground if we tried to be funny, but it was all meant in perfect seriousness. It took us but ten minutes to reach the gates of the compound across the wheat-fields, and then we were told that we had run into a Japanese outpost that was guarding the bridgehead, a most dangerous thing to do apparently, especially when riding a bicycle, as the handlebars appear to shine like the barrels of rifles. It was "Home, Sweet Home," and no one needed to be rocked to sleep that night. We had been travelling for close on thirteen hours against a strong head wind.

The following morning breakfast in bed was the order of the day, and we slept and slept until at about twelve o'clock we thought we must sleep no longer. So up we got and decided to go into the city and look around. The city was one of the old walled ones of China. The walls were forty feet high and of great width at the base, turreted and a broad rampart. Even during this year of grace the wall would make a very formidable barrier to an attacking army.

We bowed to the sentry at the gate and then cycled through the streets, passing groups of Japanese soldiers so uncouth that they would have broken the heart of any sergeant-major. There was reputed to be only six hundred of them garrisoning the town, and they were virtually bottled up there as the Chinese had control of all the surrounding country, and although the Japanese had made contact with a garrison in the next town on one occasion, they had done so at considerable expense, having started out one morning with every man full of spirits; but they returned the same evening having made contact with their next garrison but also with fifty carts of dead and dying men.

Which brings one to the suggestion that has repeatedly been made that in towns such as this where medical supplies are scarce and serious wounds need prolonged treatment, the Japanese are killing and burning all but the lightly wounded, which, of course, is not substantiated, but seems likely.

On our way through the city we saw a long line of Chinese wheelbarrows loaded with kerosene, part of a huge consignment that had been imported as part of their economic expansion scheme, which was to be followed later by 50 tons of sugar. The populace itself was sparse, many having fled to the surrounding villages, others having travelled further to escape the invaders. In all fairness to the Japanese, they were said to be treating the town-folk well after the excesses which were committed for two days after their entry. Even then, town-people are expected to do as they are told, and if a soldier comes along with a pile of dirty clothing and throws them down at an old woman's feet and says, "Wash those by six," it means a bayonet wound if they are not done.

From the Japanese point of view, I should say that their occupation was a most precarious and nerve-racking existence. Two days before an officer had been stabbed in the street, spies came and went as they pleased, and the Japanese them-

selves were preparing for a siege. We saw fifty large pigs slung between poles being brought into the city. Sandbags were being filled, and the air seemed to forbode ill. At intervals along the battlemented walls guns were placed, and an order had gone out that the villagers were to cut the corn within half a mile of the city walls, so that a surprise attack could not be made. A foolish edict this, as the corn was within two weeks of ripening, and for two seasons the peasant had had no harvest; first floods, then drought had robbed them. The Japanese finally rescinded this order wisely; it would have meant a rebellion amongst those whom the invaders hoped to win over.

Well, for two days we had taken it quietly, regaining a little lost sleep and getting over the extreme exhaustion that had overcome us on our trip. On the third day we started back early in the morning, praying that this time the wind would not change and blow in our faces from the west. We took the same trail that had led us to the place, except that we did not go via the Japanese outpost. We had cycled for fifteen miles only, when suddenly we thought we heard gunfire from the direction in which we were travelling. And, sure enough, gunfire it was, and it was directly in our path. We continued for a little further until we met some people travelling fast our way, who told us that there was a first-class battle ahead between guerillas and Japanese on the dyke road on which we were. We got to a vantage point and then watched a really thrilling artillery duel. Field guns were firing at short range, machine guns were plainly audible, we could hear the shrapnel shells bursting, see the shells break into little balls of smoke, and the smoke coming up from the burning village.

We stayed until we thought that at any moment the Japs might change their line of fire to our direction. As there was a village exactly opposite us on the other side of the River Chin, we decided to make for this and take a wide detour, so across we paddled in the mud and shallow water with our bicycles on our shoulders. At the opposing bank we were accosted by a villager with a gun who questioned us closely as to who we were and what we were doing. He had taken us for Japanese, and had been sent down from the village two hunrded yards off to question us. I think their mistake was justifiable, as we were all wearing khaki shorts. We satisfied them as to our *bona fides*, and the main body of the villagers who were standing back with their fingers itching on the triggers of their rifles withheld their fire and wished us " Good-morning."

We made a wide detour as the result of the battle that had been fought on the path that we were to have taken, and after half an hour we passed a band of guerillas returning from the fight: a trench mortar, in several pieces, was strung between poles, as well as a box or two of ammunition. We stopped to ask no questions and were intent upon making as good a pace as possible, as a great many miles had been added to our ride as the result of the detour.

Unfortunately, at the very next village we received a further check; we passed into its apparently deserted midst when suddenly from all sides a score of villagers, armed with rifles, jumped out and called, " Stop, or we shoot," and had us covered in a trice. We needed no extra commands, and as we almost tumbled off our bicycles all but one of the villagers lowered their rifles. The one, however, completely lost his head and, dancing frantically in the centre of the road with his rifle to his shoulder, kept on repeating, " I will shoot; I will shoot." His friends managed to restrain him and, after explanations, everyone was full of apologies. They insisted on us going to the headman's house, where we all sat round drinking warmed boiled water and eating roast peanuts. Cigarettes and all the usual courtesies were proffered and accepted, and they beseeched us to stop for a big meal, which we had to refuse, our time being short. Many of these villagers had never seen Europeans before, and the sudden appearance of five together on bicycles and wearing khaki shorts had given them the impression that we were " the enemy." All the villages are armed to the teeth and game to a man; during the day they are apparently peaceful citizens, but at night they become harassing bands cutting up the communications of the Japanese, and being just as unpleasant to the unwelcome invader as they can.

This last episode shook us all not a little, and when, after a further ten miles' journey, two of us had to branch off on another course, we felt that we had lost the " safety in numbers" feeling. This was brought home to us most graphically not twenty minutes later when we came upon a group of villagers a hundred yards ahead of us gathered round something. As we approached the group made off into the village nearby, and as they cleared away two corpses were seen lying on the ground. Both were men, with their brains blown out and the fresh blood trickling amongst the scorched grass. This was no place to linger, and off we shot on our bicycles after my companion had taken a six-chambered revolver from his haversack and put it into his " shorts " pocket. It is funny what things one thinks of in time of stress, but I could not help wondering how difficult it would

be to shoot straight when riding on a bike. It was most unpleasant that next few minutes, wondering whether our turn was not coming next, and not lessened when my friend said, "The murderer can't be far off now." As a matter of fact he was not far off. A few hundred yards down the dyke we met a man with a revolver in his hand and his finger on the trigger. As we approached we slowed down and told him that we were doctors, as much as to say, "Is it worth two bullets?" and he motioned us to pass. For the next fifty yards we expected to hear a shot pass over our heads, but none did. We had also asked him whether the men were spies, and the man had given a rather half-spirited "Yes." Things were certainly getting a bit hot now, and we both felt what an unhealthy country it was to travel in.

The explanation of the shooting may have been that both men were traitors, and the method of execution would then have been as follows: The executioner would accompany the two traitors out of the city on a friendly stroll and then, when at a suitable place, whip out a revolver and shoot both victims in the back. No trial necessary apparently and funeral expenses avoided, as by the following morning the dogs from the nearby village would have devoured the remains.

This was almost the end of our tale of woe. We sped on until at four o'clock in the afternoon we came within a mile of the Yellow River Bridge, where we were to cross. We walked the last part over the fine drifting sands on the north shore, and after some delay we got the ferry across and were soon at the station.. It was a matter of minutes to choose the truck we liked most on the train; we chose an open one so that we could have the wonderful cool night air after the day's excitements, and in one hour we were again home.

The trip had been an eye-opener and had left a vivid impression as to the daily happenings in a country torn by war, where the Chinese, as one of the participants, show themselves as a people who can endure the greatest hardships without a murmur.

What Do You Think?

No. 6

(A Prize of one guinea will be paid to the sender of the best solution, as judged by the Editor, and received before Monday, July 25th.)

MR. S. was having his breakfast; it was a leisurely meal, for he was in a comfortable way in the City and he had little cause for hurry. The *Times* was spread out in front of his plate and over the top of it he was aware of his charming parlour-maid, Anne, seeing that the meal went smoothly. She was "easy to look at," and Mr. S. might be pardoned if occasionally he cast an appraising glance at her. It was not until she was placing the bacon and eggs in front of him that he caught sight of something unusual; her usually clear skin had rather a pimply look about it, down her forearm and over the back of the hand. Now Mr. S. liked to have his staff in good trim, and he at once remarked on the matter, saying she had better go down to Dr. Y. about it during the morning: Anne had not thought of going, but she was in the habit of obeying Mr. S. without question, so she went.

Dr Y. was busy, but something about this rash struck him as unusual, and in spite of Anne's fresh youthfulness he quite definitely suspected syphilis, and when he questioned her she eventually confessed she—well, as she put it, "had got a bit fresh with a boy" about eight weeks before, and the long and the short of it was that she had contracted venereal disease. It shook her considerably, as you can imagine, but Dr. Y. wasted no time in adding that, in his opinion, she should not attend to the wants of Mr. S. whilst the rash was in existence. Anne, however, stoutly refused to reveal her terrible complaint, and when Dr. Y. suggested he should quietly explain the danger to Mr. S. she protested equally strenuously.

She was so vague about it when she saw Mr. S. that evening that he decided to see Dr. Y. himself and ask him what he thought of it. Dr. Y. was emphatic: Miss Anne was no fit person to have in the house—she had venereal disease and should be discharged at the shortest possible notice. So that was what Mr. S. did.

Dr. Y. heard about it some ten days later, when he was handed a letter informing him that Messrs. P., N. & Son, solicitors, were acting on behalf of a Miss Anne So-and-so, lately in the employ of Mr. S., who alleged slander and claimed damages for defamation, and also for loss of employment.

Had she got a *prima facie* case?

Well, what do *you* think?

SOLUTIONS TO No. 5

We award our prize of one guinea for the best solution of Problem No. 5 to Dr. S. C. H. Lane, of Culmer, St. Leonard's Road, Deal, Kent.

THERE is no doubt that the chemist was at fault in this case. He is not bound to dispense the doctor's prescription if he has a good reason, in which case the patient would probably go to another chemist, and the first chemist could salve his conscience by thinking it was none of his business.

What he should have done was, when he began to be suspicious, to communicate with the doctor, and tell him that the patient was getting an unnecessarily frequent repeat of his tablets, and ask if this were in order. If the doctor replied that this was correct, then the chemist, having transferred the onus of suspicion to the doctor, could carry on without any further trouble. A hint of this sort, however, should be enough to cause the doctor to suspend further dispensing of his prescription until he had seen the patient again and made tactful inquiries into the case. This would result in the prescription of a less lethal drug, or the limiting of supplies of the existing prescription.

The chemist had no right to substitute one drug or substance for another on his own, the result being in this case the precipitation of a double tragedy, which might possibly have been averted, and which morally lay at the chemist's door.

The doctor was at fault, inasmuch as he gave the patient an unlimited prescription for a potentially dangerous drug. He should have endorsed the prescription, " To be repeated twice," though this would be no guarantee that the patient was taking the tablets and not hoarding them.

If determined on suicide the couple would have found some way to do it, but the point here is that relations between doctor and chemist should be such that suspicions of this sort should lead to action, through mutual confidence and respect.

* * *

It is interesting to have the views of a pharmacist on this problem, and we publish also the solution which we have received from Mr. Moore, the Hospital Dispenser, who has also commented on the difficulty of making pills or tablets of plaster of paris well enough to deceive a trained nurse or a person accustomed to take " A.P.C."

The chemist was right in attempting to safeguard his customer and himself, but was unfortunate in his choice of method.

His proper course was to have communicated his suspicions to the prescriber and to follow the latter's instructions as to further supplies. If it were not possible to get in touch with the doctor, then he could have refused to continue dispensing the prescription.

Substitution is only permissible with the prescriber's knowledge and consent; the chemist was, therefore, committing a technical error. Also he laid himself open to prosecution under the " Foods and Drugs Act," but it is extremely unlikely that any action would be taken under the circumstances.

It can be said, therefore, that the chemist's motive was commendable, but that his line of action was not ethically correct.

* * *

OUR SOLUTION TO No. 5

No chemist has the right to dispense anything other than is directed on the prescription tendered to him. He can refuse to dispense, ask for time (to consider the matter), or refer the prescription back to the medical man who wrote it, saying why he does so—and of course the chemist who dispensed plaster of paris for " A.P.C. " should have adopted one of these courses. He transgresses the Law in selling as " A.P.C. " something worth only a fraction of its cost.

As to the responsibility taken by a doctor who makes recourse to green aspirins, this is but psychological treatment, and the drug being the same, may be charged for as before. But a doctor who says he is giving a course of vaccines and merely gives saline or distilled water, at the same time charging as for vaccines in order to complete the illusion, is quite definitely transgressing the Law, for it is fraud, and constitutes malpractice. In law a doctor should explain the nature and consequences of any treatment he adopts or his patient may have grounds for complaint; when, however, such a disclosure would vitiate treatment, it would be held reasonable for the change to be effected without notice, *provided no improper charge was made.*

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

The Idealist

By I. S.

THE Surgical Ward Clerk stood in the Front Surgery and sadly turned the pages of the Take-in Register—not one new case since the morning. Wearily he opened the Poison Book, seeking there for inspiration, or at least distraction, but finding neither.

He was fed up. So much depended on this week, and yet what had they been given—a doubtful appendix and a tib. and fib. while he had been cooking the supper. Once, he believed, there had been a serious train smash at the station. What a day that must have been! If only a Green Line bus would overturn in the Trocadero Cinema queue!

He smiled wanly at his own enthusiasm. Enthusiasm—a great mistake. Stray wisps of philosophy occurred to him. Eagerness, it seemed, was always suspect in the eyes of the world, for with it was carried the suggestion of effort required to cover lack of native ability. And what a poor substitute that was in an age which fed on epithets such as " casual brilliance " and " effortless ease " and yet was so imperceptive as to fail to realise that what it was usually offered, by those who understood, was achievement not *without* effort, but with *concealed* effort. Preference was always for him who appeared not to care. But to allow oneself to feel very strongly about anything at all was merely to court disappointment. A great pity. He had always been keen about things himself.

He looked up and caught sight of row upon row of little packets looking down at him from their cupboard on the wall. Each was labelled " Anti-Streptococcal Serum." Did that stuff ever save anyone's life, he wondered. No one seemed to know. But they went on using it just the same. As was inevitable. Only thus could one learn.

An idealist, evidently, this ward clerk.

His reflections were interrupted by the desultory conversation of the small group behind him.

A self-possessed young man in a short white coat, the Out-Patient Officer, was discussing a diagnosis with friends who had dropped in to take him away for dinner. He was saying: " The pain appeared to be localised in the left iliac fossa . . ."

Sitting hunched up on a stool, reading the evening paper, was a student in overalls.

At the table a junior nurse was cutting up bandages.

Beside her another student, in his shirt-sleeves, was engaged in an attempt to fit a large pair of scissors over his nose in the fashion of spectacles; he appeared to have nothing else on hand.

Reading a book propped among the bandages, her bare elbows resting on the table, sat the Staff Nurse. An engaging creature this. Among her many attributes she possessed a most distinctive way of walking—with a sort of small circular movement of the hips. Her duties entailed frequent trips down to the O.P.O. room and back. On such occasions it was a pleasure to watch her. Many did.

A peaceful scene.

And then, violently, the quiet of the Surgery was shattered as heavy boots kicked open the swing-doors. Across the threshold there struggled two ambulance men carrying between them a large florid-faced woman. No sooner had the doors swung back behind them than she slipped from their grasp and fell full length on the floor, where she lay without moving. The two men stood back, breathing heavily; neither made any attempt to pick her up.

The ward clerk had seen this sort of thing before, engineered for him by Hollywood or Mr. Cochran, but hitherto never in real life. Still, one must try for a differential diagnosis. Murder, childbirth, coronary thrombosis, epilepsy or strychnine poisoning, thought the ward clerk rapidly, and held his breath.

" She says it's been troubling her for years," remarked the O.P.O., without turning round.

The young nurse reached across for a fresh packet of bandages.

The junior dresser who was reading the evening paper continued to absorb the wisdom of Dean Inge.

His colleague removed the scissors from his nose, where they had been beginning to make a little red mark, and quizzically surveyed the passing scene as he employed them anew in the role of lorgnettes.

The Staff Nurse fixed the place in her book with the little marker thoughtfully provided by her library, and looked up with mild interest.

Observing doings afoot which promised to be within her province she rose and went across to the ambulance men, but on catching sight of the prostrate figure she stopped, looked across at the

O.P.O., and smiled with the half of her face that was nearest the wall. Whereupon he, like the central figure in some historic pageant, stepped delicately forward and bent down with his face close above the shapeless body on the floor. He rose a moment later. The look on the face of the Staff Nurse was reflected on his own.

The ward clerk waited tensely for some gem of diagnosis, some swift life-saving act of service. He waited in vain. The voice of the O.P.O. was barely audible above the sound of stertorous breathing, but he was just able to catch the fateful words. "Drunk again," said the O.P.O., "and the third time in a fortnight."

Nursing News

THE following Nurses were successful in the Final State Examination in May. Their names have been added to the State Register :—

Abbott, Joan Morley.
Brooker, Elsie Joan.
Burraston, Joan Worthington.
Cussens, Margaret.
Evans, Margaret Agnes.
Fearnehough, Margaret Marion.
Foster, Ellen Frances.
Gill, Gladys Constance Mary.
Griffin, Patricia Doris.
Jones, Betty Lavender.
Jones, Dorothy Agnes.
Kimbell, Margaret Elizabeth.
Lander, Julia Blamey.
Large, Margaret Beatrice.
Osmond Smith, Margery Hilda Osmond.
Raby, Viola Deirdre.
Robertson, Bridget Mary.
Rowbotham, Joyce.
Soothill, Joan Helene.
Steinbach, Pamela.
Taylor, Kathleen Mary.
Thornber, Mary.
Thouard, Petricia Maria.
Townley, Aubrey.
Williams, Jessie Grace.

Affiliated training with the Bromley and District Hospital :—

Niblett, N. I.

Correspondence

Students' Accommodation

To the Editor of the GAZETTE

SIR,—I have just read Dr. James Rickett's letter in your issue of May 21st in which he raises again the question of the College.

When I was last at home in 1931 I looked round the College, and was appalled at its squalor.

One grows up with it, so to speak, as a student, and does not realise how bad it is, but, returning after a period of years, one is shocked that such conditions can obtain in an institution where sanitation, housing and dietetics form part of the educational curriculum.

Apart from the purely domestic side, Guy's is a residential college of London University, and Dr. Rickett is quite right that we should make our residential conditions attractive and dignified, instead of squalid and repellent.

Resident appointments at Guy's have always been very valuable and attractive, but it is a form of moral blackmail that compels men to accept such very inferior living conditions in return for the coveted privilege of holding a house appointment.

Yours, etc.,
G. DUNDERDALE.

Nanyuki,
Kenya Colony.

Sport

Cricket

GUY'S v. MALDEN WANDERERS

THIS match was played at Malden on July 4th. The fact that this was the first game of the Malden Cricket Week, and therefore on a Monday, increased the labours of both secretaries. Chase and Allen were both unfortunate enough to damage fingers the day before, and so the Hospital side contained much "new talent." The bowling was opened by Morey and Kinloch, of Channel Islands fame, to

Norris and O'Brien. The wicket was very dead, and so Morey soon gave way to Tucker, who proceeded to make excellent use of what life there was in the wicket. He bowled O'Brien with a well-disguised slow ball at 48, and a few runs later McClintock bowled Norris, and we went to lunch at 65 for 2.

After lunch, Tucker continued to bowl well, bowling Rough with a beautiful off-break, which he repeated a few overs later to account for Daley, the Surrey slow bowler. Grant after this was scoring freely, his hooking being very impressive, until he tamely played a short one from Tucker into the hands of F. A. Meek at cover. The latter was assisting the Hospital as a "patient," having taken Chase's place when his finger was damaged. Our own fielding was not so good as that of our visiting artistes, for G. V. Blaine had also made a well-judged catch at mid-wicket, as Tatchell was dropped in front of the screen off O'Gorman at 165 for 6. This, fortunately, would only have made it "look better in the papers," as down came the rain, and the pitch was flooded.

Tucker's figures were 17 overs, 4 maidens, 42 runs, 4 wickets, representing some very attractive bowling.

Malden Wanderers.—165 for 6. Match abandoned owing to rain.

GUY'S v. THE STOICS

THIS game was played at Honor Oak Park on Wednesday, June 29th. Yet another opening pair was tried by the Hospital, to wit, Warner and Hughes, and they were surprisingly successful. The surprise was mainly in the former's luck in facing after lunch the offside bowling of Harrison.

When Moore came on he was at first erratic, but he soon bowled Warner, and then bowled Chase third ball with a magnificent length leg-break. Tucker, who as a prospective Guy's man was playing during the long vocation, shaped well until caught at the wicket, a fate shared by Hughes 13 runs later. He had made a good 44 out of the 91 scored for four wickets.

Foster and Birks added a rapid 43 runs, and both were out within a few runs of each other (141 for 6). O'Gorman, who was batting extremely well, forcing the pace where necessary, with Thomas, put on another 50 runs, and the last wicket contributed another 22 runs before the last man in succumbed to his usual full toss, leaving O'Gorman not out with 41 to his credit, and the total at 221.

The Stoics had just over three hours to get the runs, and they set about their task in fine style. Vale-Rumball and Howard attacked the bowling from the start, the former's square cutting being a delight to watch, and, when he was well taken by Foster in McClintock's leg-trap, he had made 63 out of 91 added for the first wicket in 55 minutes; they were well ahead of the clock. But Foster was bowling excellently, occasionally making his left-hand slow-medium balls go very quickly across the batsman.

The game tended to slow up rather when three or four wickets were down, but Trollope relieved the monotony of the ————pad by play to McClintock by striking him twice through the short legs, only to succumb to Foster in the following over. But even when seven wickets were down for 184, with Markham batting well, the Stoics were easily able to play out the last quarter of an hour, being only 26 runs behind when stumps were drawn with three wickets to fall.

Despite the absence of Morey in this game being a disadvantage, it was auspicious in that it enabled P. H. Birks to show us what an able captain he is, since he was leading the side on this, his fiftieth consecutive appearance for Guy's.

Guy's.—221 (A. C. C. Hughes, 44; J. M. Warner, 30; H. D. Foster, 30; G. O'Gorman, 41, not out). J. Moore, 4 for 44; G. T. Harrison, 5 for 67.

Stoics.—195 for 7 wickets (W. A. Vale-Rumball, 63; A. J. Howard, 52). K. O. Foster, 2 for 37.

GUY'S v. WIMBLEDON

ON Saturday, July 2nd, the Hospital had what was on paper an extremely weak side out. Though Morey was back, we were without Birks, Hughes, Knight, Coffey, Foster and Hurst. But the efforts were all the more creditable.

Play did not commence until 12.10. This was particularly unfortunate since at 86 for 2 and at five minutes past one heavy rain set in, apparently for the day. The start was not good, for with two runs on the board a full toss and his sudden promotion was too much for McClintock, while Thomas left at 24. O'Gorman, who was already batting with delightfully easy freedom, was joined by Morey, and they put on over a hundred before Morey was caught at long on trying to force the pace even more. This had become necessary owing to the impossibility of re-starting the game until 4.50.

Just before 5.30 the score was 163, and O'Gorman was 89, with Leeming 16, and both looking like bags of runs. Morey decided to declare at the end of the next over, and amid

great excitement O'Gorman struck the eleven runs needed to complete his first century for the Hospital. We had thus, mainly thanks to him, made 175 for 3 wickets declared in 95 minutes.

Wimbledon now had 80 minutes in which to make the runs, and Rodney Smith, as usual, started very quickly. Jenkins was well caught by Elder off Waters, and then McClintock came on and had Smith caught at mid-wicket for 28. The scoring rate was still a steady two runs a minute. Off the next ball Garlands Wells was unfortunately dropped at deep mid-off, but his enterprise kept the game alive, as Wimbledon made a very sporting effort to get the runs at all costs. At 65, Reddick was caught in the slips off O'Gorman's leg-break, and wickets fell until the rate was slightly slowed, when Garland Wells was also caught at mid-wicket by Leeming at 110 for 6.

There was barely twenty minutes to go and Stocker and Duncan quite rightly paid a little more attention to defence, and easily played over time, stumps being drawn at 140 for 6 and seven o'clock.

Guy's.—175 for 3 wickets declared (G. O'Gorman, 100 not out; L. G. Morey, 46).

Wimbledon.—140 for 6 (H. M. Garland-Wells, 40; J. D. Stocker, 30 not out; C. L. T. McClintock, 4 for 33).

Swimming

UNITED HOSPITALS SWIMMING GALA

THE Annual Inter-Hospitals Swimming and Diving Championships were held at Marshall Street Baths on Friday, 24th June. The racing was keen and reached a high standard. There were fewer spectators than usual, but everybody present agreed it was one of the best galas we have held.

It was a particularly happy evening for Guy's. It fell upon us to do most of the organising and running of the Gala this year. We were very pleased that Mrs. Eckhoff was able to give away the prizes. Although the support of our staff gets less and less each year, the number of Guy's men present was greatly increased, and the Swimming Club would like to take this opportunity of thanking them for their wholehearted encouragement.

The Guy's team put up a fine performance. We were equal with St. Bartholomew's in the Diving Cup and runners-up to St. Mary's in the Swimming Cup.

In the diving we were the only hospital to get two competitors into the Final—J. Ronchetti, the holder, and F. H. Jowett, a freshman who performed extremely well throughout the evening. Unfortunately, Ronchetti was well below form, and the event was won by D. G. Evans (Bart.'s); Jowett was second and Ronchetti fifth.

In the 100 yards J. Powell (Guy's) swam well against strong opposition and was placed third.

In the rugger race, P. Gartrell (Guy's) started badly, but by cunningly kicking off his heavy socks managed to overhaul the leader in the last two yards to win by a touch.

The 50-yards race was a grand fight. The holder, W. Young (St. Mary's), and S. Vorster (Guy's) were joint favourites. They were racing level slightly ahead of the other competitors at the turn, then ten yards from the end Vorster put in an electric spurt to win by a yard. This is the first time a Guy's man has won this race since 1929.

The team race (6×1) was the most exciting event of the programme. Guy's led at the start, but St. Mary's were two yards up at the end of the second length. The lead was slowly reduced until we drew level in the fifth length. The last two men entered the water together, and after both had been slightly ahead the race ended in a dead-heat. Bart.'s were third, ten yards away.

In the medley relay Guy's were given a good start by A. J. Drew in the first length, and they kept ahead throughout to win by a yard.

In the $233\frac{1}{3}$ yards relay, St. Mary's were slightly ahead of Bart.'s for the first four lengths. Then Vorster, doing a very good 66 yards, overtook the Bart.'s competitor and decreased St. Mary's lead. F. Jowett, doing the last lap, was gaining with every stroke, but could not quite make up the leeway, and we finished second, $1\frac{1}{2}$ yards behind St. Mary's.

This gave the Cup to St. Mary's with 90 points. Guy's were second with 73 points; Bart.'s third with 41 points.

There was a water-polo match to end the evening between the United Hospitals and the United Banks. The Banks proved themselves much superior in speed, tactics and handling. They won easily by 8 goals to 3.

Most of the credit for the good performance of the Guy's team is due to D. G. Horan, the Secretary. He only had a few people available, yet managed to put a strong team in each event.

The results were as follows :—

Diving.—

1. D. G. Evans (Bart.'s). 2. F. H. Jowett (Guy's).

100 *Yards.*—

1. S. Edelman (St. Mary's). 2. W. Young (St. Mary's). 3. J. Powell (Guy's). Time, 59 sec.

Rugger Race.—
1. P. Gartrell (Guy's). 2. A. Hennesey (Middlesex).

50 Yards.—
1. S. P. Vorster (Guy's). 2. W. Young (St. Mary's).

Relay Race, 6×1.—
Dead-heat—St. Mary's and Guy's (A. Drew, J. Crawford, D. G. Horan, F. Dunn, F. Jowett, S. P. Vorster). 3. St. Bartholomew's.

Medley Relay.—
1. Guy's (A. J. Drew and F. H. Jowett, backstroke; H. H. Crabb and D. G. Horan, breat-stroke). 2. St. Mary's.

Relay Race (233⅓ yards).—
1. St. Mary's. 2. Guy's (33⅓ yards, D. G. Horan; 100 yards, J. A. Powell; 66⅔ yards, S. P. Vorster; 33⅓ yards, F. H. Jowett).

Water Polo.—
United Hospitals S.C., 3 goals.
United Banks S.C., 8 goals.

United Hospitals' Team.—
M. Kamill (St. Mary's), goal.
W. Young (St. Mary's) and A. M. McCall (Guy's), backs.
R. Shaw (St. Mary's), half.
J. Ferguson (St. Mary's), C. Young (St. Mary's) and C. Pilcher (U.C.H.), forwards.

Diving Cup.—
Guy's, 5 points. Bart.'s, 5 points. St. Mary's, 3 points. Royal Dental and Charing Cross, 2 points.

Swimming Cup.—
St. Mary's, 90 points. Guy's, 73 points. Bart.'s, 31 points. Middlesex, 12 points. University College Hospital, 6 points. London, 5 points. Royal Dental and Charing Cross, nil.

Rifle Club

THE peak of this year's shooting was reached with the Staff Match. On Sunday, June 26th, the plains of Bisley reverberated to the thunder of battle, and many a great man laid aside his knife to take up the musket of to-day. However, youth prevailed, and the Students triumphed by 564 points to the Staff's 546. We congratulate Dr. Meckleburg, who by a display of great skill won the Staff Cup with 96 points (highest possible score, 105 points).

The same morning the Hospital Prize Meeting took place. H. C. Miller proved himself invincible, winning the Challenge Cup, the Open Aggregate and two Range Prizes. Scores were :—

Aggregate Tankards (highest possible score, 105.)—H. C. Miller, 98; T. L. Reeves, 98.

Range Prizes, Tankards (highest possible score, 35).—200 yards, T. L. Reeves, 34; 500 yards, H. C. Miller, 34; 600 yards, H. C. Miller, 33.

Challenge Cup.—H. C. Miller.

A great day was Had by All, and we extend our hearty thanks to the Staff for coming down and giving us such a fine match.

The rest of the season's shooting has been slightly disappointing. We were placed third in the Hospitals' Armitage Cup, but we still have hopes of the N.R.A. Inter-Hospitals' Cup shot for during the Imperial Meeting.

However, the Club needs to increase its numbers if it is to uphold the Hospital traditions at Bisley. We need more men, and we must have them.

Golf

GUY'S v. LITTLEHAMPTON GOLF CLUB

ON Saturday, June 18th, the golfing team went down to Littlehampton for the week-end and were very kindly entertained to a series of matches by the Littlehampton Golf Club. The fine weather, excellent course and generous hospitality of our hosts all helped to make it one of our best fixtures, and we had a thoroughly enjoyable time.

Foursomes and fourball matches were played, the home team establishing a good lead in the former. A great effort was made in the fourball matches to retrieve our losses, but we were just unsuccessful, and were finally beaten by 7 matches to 5. Results were :—

B. C. M. Reed and F. R. Mansell (Guy's) lost two matches and won one.

T. C. Ritchie and T. N. Praat (Guy's) won two matches and lost one.

N. S. M'Clean and F. R. Buckler lost two matches, halved one.

S. A. March and S. E. M'Callin won one match, lost one and halved one.

Final result.—Littlehampton Golf Club, 7 points; Guy's Hospital Golfing Society, 5 points.

Hospital Information, etc.

Pass List

OXFORD UNIVERSITY.

THIRD EXAMINATION FOR THE DEGREES OF BACHELOR OF MEDICINE.

Trinity Term, 1938.

Materia Medica and Pharmacology.

P. R. Cooper
J. P. Rochford
R. G. Thomas

Pathology.

N. A. Neville
E. Smith
R. G. Thomas

Medicine, Surgery and Midwifery.

J. S. Astbury
W. D. Brinton
O. I. Green
S. H. Llewellyn Smith
T. E. Ooi
E. B. G. Reeve
W. E. Young

Forensic Medicine and Public Health.

C. D. Cormac.

UNIVERSITY OF CAMBRIDGE.

FIRST EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

Easter Term, 1938.

PART I.

Inorganic Chemistry.

N. W. L. Mutch.

PART IV.

Organic Chemistry.

N. W. L. Mutch
P. N. Davies-Colley
M. L. MacManus

QUALIFYING EXAMINATION IN PHYSIOLOGY FOR MEDICAL AND SURGICAL DEGREES.

D. W. Burnford
B. P. Griffin

Papers by Guy's Men

Rix, R. E. The relationship of pre-normal occlusion to the early loss of deciduous molars. *Proc. Roy. Soc. Med.*, 1938, xxxi, p. 959 (Sect. Odontol.).

Simpson-Smith, A. Multiple cysts of kidney, simulating mesenteric cysts. *Ibid.*, 917 (Clin. Sect.).

Ellis, R. W. B. Congenital parietal foramina. *Ibid.*, 923 (Clin. Sect.).

Forman, Louis. ? Senear-Usher disease: Case for diagnosis. *Ibid.*, 874 (Sect. Dermat.).

Barber, H. W. Miliary lupoid. *Ibid.*, 881.

Layton, T. B. Scarlet fever complicated by mastoiditis with meningitis, and sinus thrombosis with jugular phlebitis. *Ibid.*, 909 (Sect. Otol.).

—— Scarlet fever complicated by mastoiditis and lateral sinus thrombosis. *Ibid.*, 910.

Punch, A. Lisle. Pitfalls in the diagnosis of intrathoracic tumours. *Med. Pr.*, 1938, cxcvi, 564.

Gillespie, R. D. The treatment of anxiety states. *Practitioner*, 1938, cxli, 10.

Bray, George W. Diet in health and disease: xiii—Diet in allergic disease. *Ibid.*, 97.

Bull, F. Bocquet. Fractured incisor teeth. *Dent. Rec.*, 1938, lviii, 374.

Clarkson, P. W. Modern classified treatment of varicose veins. *Lancet*, 1938, ii, 69.

Guy's Hospital Reports.

April, 1938, No. 2, Vol. lxxxviii (Vol. xviii, Ser. 4).

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Mann, W. N.: The falling incidence of hour-glass stomach. pp. 136-142.

Punch, A. Lisle, and Close, H. G.: A case of unexplained eosinophilia. pp. 143-149.

Smith, R. E.: Epidemic diarrhœa and vomiting and sporadic diarrhœa. pp. 150-162.

Rushton, Martin A.: The dental tissues in osteitis deformans. pp. 163-171.

Gillespie, R. D.: Dermatitis artefacta. pp. 172-184.

Campbell, A. M. G.: Sodium evipan as an aid to psychotherapy. pp. 185-198.

Report of the medical committee on precautions to be taken in the admission and nursing of cases of infectious disease in hospitals. pp. 199-209.

Seelig, S. F.: Intradermal skin tests in diabetes mellitus. pp. 210-217.

Boland, E. R.: The treatment of asthma. pp. 218-223.

Schott, Adolf: Observations on the fourth electrocardiograph lead, with special reference to its initial ventricular and auricular portions. pp. 224-229.

Spurrell, W. R., and Ucko, H.: Studies in clinical endocrinology—3. Laboratory conditions. pp. 230-239.

Starling, H. J. and de Navasquez, S. J.: Notes on a case of heart-block observed during a period of thirteen years. pp. 240-251, with a description of the heart, pp. 252-256.

Change of Address

Bryant Bell, Assistant to Dr. Bentley, Vrede, Orange Free State, South Africa.

G. E. Aling, Eastern India Railway Hospital, Tundla, Upper Provinces, India.

S. M. Whitteridge, 30, Queen Anne Street, Cavendish Square, W.1. and 18 Gordon Mansions, Torrington Place, W.C.1. *Langham* 3480.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

A FORTNIGHT ago we made an impassioned plea to the students that they should consider seriously the present condition of their Club premises and its amenities, then, having considered, should spend a few moments writing answers to some leading questions on this subject that had been compiled by us and printed on a special form. The number of these forms returned is not encouraging and cannot be, in our opinion, a true index of the indignation felt by the average student for the accommodation provided within the College. We gave it as our opinion that this was the proper time for a decision to be made to build a new and more salubrious home for the Club, one reason for this opinion being that there is at the moment an ideal site as yet unbuilt upon. We also pointed out that it was too much to hope that any one person or body of people other than ourselves would step forward with plans for bettering conditions as they are to-day, and we suggested that the time was ripe for the student to voice his own feelings and in so doing initiate a strong movement for the building of a new College. We have had some valuable answers and suggestions to the questionnaire, but we have not, as yet, had nearly enough of them to provide us with the opinion of the majority, and it is just this that we must have, for it is quite useless to have the ideas of the select few. The whole success of the project must stand or fall on the majority opinion of those it most closely touches; we must know what their feeling is and to what extent it is felt.

We cannot believe that you are all satisfied with the College as it stands to-day, with its overcrowding and far from congenial atmosphere, and with its pathetically inadequate residential quarters. It has no comfort, no dignity; it is bleak and insanitary, when you walk its unfriendly passages or jostle one another in its dining-room do you never think how unsatisfactory it all is, and do you never dream of a spacious, well-ventilated building that might be in its place?

We invite you to read the Warden's article on another page describing the accommodation at some of the other London teaching hospitals, and as you do so to bear in mind the comforts and luxuries you yourself enjoy here at Guy's. We would like to give proof to the authorities that new buildings are earnestly wanted by the vast majority of you and that you are willing to make a personal sacrifice to further your own ideas of comfort and cleanliness for the present and future generations of students.

We realize that in this demand you may wish to remain individually anonymous, and have, as we said, made arrangements for you to do this by filling in a form, which will be supplied to you either by the College porter or the Wills Librarian, and addressing it to the Editor.

As you will see from the correspondence column in this issue, you have the blessing of your Clubs' Union Council, and now all we ask is that you have your say.

ONCE again we are able to announce a generous gift from our Treasurer, Lord Nuffield. For some time past it has been felt that the Radiological Departments of the Hospital have, with their ageing machines, been hardly sufficient for the important work they are called upon to perform in the everyday life of the wards and out-patient departments. For obvious economic reasons it has been impossible to purchase the costly apparatus necessary to modernise our X-ray

service. Lord Nuffield, however, has given £3,300 to buy new plants and recondition existing machinery in both Medical and Surgical Radiological Units. In addition, a part of the money will be spent in fitting a special urological X-ray table in the round house, situated in the small quadrangle on one side of the Colonnade. This building we understand is to be converted into a room for the performance of radiographic diagnostic operations for the Genito-Urinary Department. We thank Lord Nuffield for yet another example of his generosity to this Hospital.

A MEETING proposed by the Nurses' Representative Council was held in the Physiology Theatre on Monday, July 11th, when Dr. Ellis gave an interesting address. His talk of existing conditions in Basque and Catalonian territory aroused the sympathy of all his listeners, who must have realised how much Dr. Ellis's labours in Spain had enriched the work of the Hospital. A collection made for the Spanish Medical Aid Committee amounted to £1 10*s*. 9½*d*.

OUR recent publication of problems of medico-legal interest in the form of the "What do you think?" series has been so well received by our readers that we hesitate to disappoint them with the news that No. 6 will be the last one of this group. So popular have they been, however, that we have arranged that a further series shall be published for you in the near future, again with a prize for the best answer to each one. It has been apparent that the authors of some of the solutions have doubted the probability of some of the points made in these problems, but we are able to assure them that each one has been founded on actual fact and that in no instance has there been any imaginative padding. We hardly like to say it, but truth apparently is stranger than fiction.

The Unexpected in Surgery—II

A Clinical Lecture by Nils Eckhoff, Esq., M.S., F.R.C.S.

GENTLEMEN,—I finished the last lecture discussing vomiting as a post-operative complication and pointed out that any vomiting that continues after the first day may be due to acute dilatation of the stomach. It is recognised by enormous distension of this organ and profuse and repeated vomiting. It is quickly remedied by the passage of a stomach tube or a Ryle's tube, by aspiration of the contents, and by turning the patient on to his face with the foot of the bed raised.

PARALYTIC ILEUS

If, in spite of these measures, vomiting tends to continue, paralytic ileus must be suspected. By paralytic ileus we mean a condition in which the passage of the intestinal contents is held up due to factors other than a genuine mechanical obstruction. It occurs in the presence of peritoneal inflammation; after excessive handling of the intestine, and sometimes apparently as a reflex phenomenon. In inflammation inhibition is a protective phenomenon, as is well exemplified in the early stages of acute appendicitis, when intestinal sounds at the ileocœcal region are very much diminished. The intestinal wall becomes œdematous, and this further inhibits movements. Excessive handling of the intestines is thought to produce paralysis. Although difficult to explain, reflex ileus is sometimes seen after a perfectly normal confinement or after an operation on some other part of the body. I should mention in passing those cases of ileus that are due to interference with the arterial or venous supply of the intestine, as in thrombosis or embolism of the mesenteric vessels.

The first effect of inhibition of intestinal movements is to produce distension. Distension exerts tension upon the nerves in the mesentery and upon the vessels, leading both to nervous stimulation and to venous stasis. Apart from the vomiting and distension above-mentioned, pain of a continuous and dull type is to be expected in the early stages, but later this is noticeable for its absence. Hiccough may occur; the tongue is dry and dirty; the breath foul; the pulse high, but the temperature low; visible coils may be seen distending the abdomen, but there is no peristalsis. There is striking silence on auscultation, except for certain high-pitched tinkling sounds, which when heard, are characteristic of ileus. The abdomen is doughy on palpation.

The condition is very serious and, if untreated, is very often fatal. The treatment in the first place is preventative, in correct pre-operative preparation by the free administration of glucose and fluid, by emptying of the lower bowel with an enema, and the avoidance of excessive purgation. At operation the intestines must be handled with great care and evisceration avoided. After operation the proper use of sedatives diminishes the pain in the wound and assists the patient in expelling flatus. Anal spasm seems to be a feature of the post-operative state, and some surgeons advise stretching the anus at the operation.

Radiant heat to the abdomen will stimulate circulation in the bowel wall. Tight bandaging is to be avoided. An enema is usually given on the third day, and if no result is obtained this should be followed by a treacle enema (five ounces of treacle in a pint of water). If this fails, an enema of ox bile (two ounces) or the patient's own vomit (four to eight ounces) may produce a result. If no result is obtained with these enemata, ileus is probably present. A duodenal tube is now passed and continuous suction applied. Duodenal drainage is designed to bring about decompression, which aids reduction of the œdema, thus restoring muscular power. It may take several days for this effect to be obtained, but it is one of the most valuable methods at our disposal. Fluids in great quantity must be provided to make up for the fluid lost in aspiration, and for this purpose intravenous saline is most satisfactory. Morphia may be given at this stage, for there is evidence that it actually stimulates intestinal movements. If after twenty-four hours there is no great improvement, attempts may be made to promote peristalsis. Glycerine, pituitrin and eserin are useful, and acetycholine has obtained a reputation, but its effects are not always striking. Hypertonic saline (500 c.c. of 10 per cent. solution) may produce a dramatic cure. If these measures fail, a spinal anæsthetic should be administered, and this should produce a result in paralytic ileus, whereas it will not do so in mechanical obstruction. Its administration acts therefore as a diagnostic, as well as a therapeutic, test.

INTESTINAL OBSTRUCTION

Obstruction due to mechanical means occurs every now and again after operations, and it may be extremely difficult to differentiate between ileus and genuine obstruction. There is vomiting, constipation and distension, but the pain in intestinal obstruction is usually definitely colicky in nature. Intestinal obstruction rarely occurs before the seventh day after an operation, while ileus begins to appear from the third to the fifth day. Loud gurgling noises are heard with the stethoscope. Drugs calculated to stimulate the intestine only increase the pain and gurgling without producing a result. If genuine obstruction is suspected, the abdomen should be opened forthwith. I recently operated on a patient for hernia and found that the sac had a mass of adherent omentum, some of which had to be removed, while the rest was ligatured and returned to the abdomen. Four days later he developed genuine intestinal obstruction and was operated on by a colleague, with a successful result. This is an instance of early obstruction, and great credit must be given to my colleague for diagnosing the condition correctly. Another patient had an operation for strangulated hernia and developed acute obstruction while she was at a convalescent home some weeks after the operation. This case also had a second operation which proved to be successful. I have seen several cases of mechanical obstruction occurring within the first fortnight after appendicectomy for acute appendicitis. In these cases the prognosis is less good, particularly if the true nature of the condition is not quickly recognised. If at operation no clear obstruction is discovered, an ileostomy should be performed. This, like duodenal suction, creates decompression of the intestine and causes subsidence of the œdema and swelling, and may often be of life-saving value.

HEART FAILURE

It may be stated in a general manner that most patients with heart disease stand operation well, but there are a certain number of individuals who have unsuspected weakness of the cardiac musculature, and these cases are liable to produce a tragic ending to an otherwise successful operation. I was called to see an old man of seventy-three one day suffering from acute cholecystitis. I saw him at his home and transferred him to a nursing home. In due time cholecystectomy was performed, and some three weeks later I suggested to the Sister that he might begin to get up. He did this for several days before informing the Sister that he had not been out of bed for seven years. On this day he developed all the signs of heart failure and died very quickly.

Weakness of cardiac musculature is frequently associated with gall-bladder disease in elderly individuals, but may occur in anyone past middle age rather unexpectedly. Mr. Slesinger has related to me an instance of a man who did daily gymnasium exercises and played squash, but who died suddenly after the opening of an abscess under anæsthesia. In this case the physician had given a bad prognosis, chiefly based upon poor exercise tolerance.

Patients with thyrotoxicosis frequently exhibit one or more manifestations of cardiac disease, and, although the immediate post-operative period may produce a striking increase in pulse rate with or without fibrillation, these patients usually survive the post-operative period if proper precautions are taken, the chief of which is pre-operative medication with Lugol's iodine.

HICCOUGH

Post-operative hiccough is a most distressing symptom, and in the main is to be considered grave. It probably indicates diaphragmatic irritation, and occurs as above-mentioned in cases of intestinal distension, but it may occur unexpectedly in patients who are otherwise progressing fairly favourably. Carminatives and sedative drugs of all sorts have been recommended, but use of them has little effect. Administration of CO_2 by inhalation is probably the most valuable method of controlling hiccough, if at the same time steps are taken to remove distension and other factors which may be irritating the diaphragm.

PAROTITIS

Acute suppurative parotitis is another grave post-operative complication and is to be expected in any patient in whom mouth-feeding is being withheld. It used to occur in patients with typhoid fever and in the medical wards during the nursing of hæmatemesis. It is avoided by keeping the salivary glands constantly stimulated, which can be accomplished by giving the patient acid-drops or chewing-gum. In a recent severe case of intestinal obstruction, post-operative vomiting demanded the insertion of a duodenal tube and the administration of intravenous saline. The Resident did not consult me until the third or fourth day, when I warned him of the risk of parotitis. Although chewing-gum was then given, parotitis developed on the sixth day. In another recent case parotitis developed on the tenth day in a woman who was recovering satisfactorily from cholecystectomy. In her case feeding had been normal, but she had on a shelf in her room mouth-washes of different sorts and colours which she was using ten to fifteen times a day. She had opposite the opening of the parotid duct a dead tooth. In her case I believe infection was driven up the duct by excessive mouth-washes. Dental sepsis is therefore another factor in the production of the condition, and as mentioned in my last lecture this should be attended to before any operation.

Recent writings suggest that radium, X-rays and short-wave diathermy are helpful in treating parotitis. I have no experience of this, and most cases appear to require surgical interference at some time or other. It is not advisable to wait for signs of fluctuation, because the parotid fascia is so thick that this sign does not appear until the fascia is ruptured, by which time the patient is extremely ill. Mortality is said to be between 30 and 40 per cent., although in my experience this has not been the case.

EMPYEMA AND SUB-PHRENIC ABSCESS

In the last lecture we discussed certain respiratory complications, drawing particular attention to pneumonia, collapse and abscess of the lung. Empyema may follow either of these two, but it may also occur as an isolated phenomenon, particularly in cases of upper abdominal infection. In one patient following cholecystectomy and drainage of the common bile duct, post-operative pyrexia was unexplained until the Resident aspirated six ounces of pus from the left pleura. In this case the condition did not recur and the patient recovered smartly. Few cases of empyema are as happy as this one. Most have a stormy illness lasting many weeks, and the mortality is high.

Empyema is not infrequently associated with subphrenic abscess. This condition is a fairly common sequel to perforation of the stomach or duodenum, and sometimes it occurs after perforation of the appendix. Pus collects between the liver and the diaphragm, most often in the right posterior compartment. A clear or purulent effusion may then be found above the diaphragm as well. A subphrenic abscess should be drained as soon as a diagnosis is made, but the prognosis is extremely poor. Empyema should be dealt with by repeated aspiration until the pus is thick, by which time sufficient adhesions have usually been formed to make intercostal drainage or rib resection a safe procedure.

SPREADING GANGRENE

This is a peculiar and rather infrequent post-operative complication, but is worthy of description. It usually starts as what seems to resemble a boil or carbuncle around one of the stitch holes. The skin gradually disappears while pus exudes. In a short time the area of skin lost increases. This continues steadily until in some cases the whole of the skin of the anterior abdominal wall has disappeared. The condition is thought to be due to some peculiar symbiosis of organisms, but the exact organism responsible is not established. The only treatment that appears to be of any avail is to draw a ring with a diathermy cutting current round the spreading area. Skin grafting will probably be necessary to fill the defect later.

If there is any moral in these two lectures it is that no operation is to be considered " minor " or undertaken lightly. Our responsibility in advising surgery is a very great one, and, having advised, we must do all in our power to prevent complications.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Monday, September 27th

WENT up to Mount Sinai Hospital (105th) to meet Lewisohn. The bus travelled well in the early morning. Lights control all crossings in view, in New York at any rate, so that if a light goes red a quarter-mile ahead of you, you have to stop at the crossing, say 20 yards in front of you. In 5th Avenue everything in sight goes red or green together. As I dismounted, a typical New York sight—a dustman in gloves and smoking a large cigar.

Lewisohn took me up to Berg, a Disraeli of 65, a most interesting and impressive talker on every topic. Loves to listen to himself, but quite right to. Lewisohn and he are great believers in the frequency of jejunal ulcers after gastro-jejunostomy (some article report on gastric surgery in Cincinnati in *Annals of J.A.M.A.* within last year said to show 50 per cent. of jejunals); Berg says at any rate 30 per cent., while gastrectomy has 2 per cent.

First case.—Old man. Carcinoma of transverse colon, resected six years ago. Pyloric stenosis has developed in last six months. Divided adhesions. Colon suture has been side to side, and looked good. Found obstruction to pylorus was carcinoma, with secondaries in liver. Did posterior gastro-jejunostomy, with Murphy's button. In jejunum (longish loop) and stomach, he put purse string (two stitches each side) of Pagenstecher linen thread; must not include mucous membrane, so that this is turned in; in each case along long fibres of bowel. After pushing together, took about half a dozen suspensory stitches, jejunum to stomach, to take weight of button off anastomosis. Then sewed transverse mesocolon to stomach. (Fig. 22.)

Fig. 22.

(Could have done proper anastomosis in same time, looked a poor little hole, and the suspensory stitches a confession of doubt of its safety. Needle half curve about $1\frac{1}{4}$-in. circle, seems very usual here.)

The abdominal wall was closed with interrupted sutures of Japanese salmon gut, $\frac{3}{4}$-in. apart, including all layers, $\frac{1}{8}$-in. from edge in deeper layers, $\frac{1}{4}$-in. in skin; no other sutures except a few to tidy skin.

Remarks.—"The school that grew up with the Murphy button need no confirmation of its value. The M.B. is the most perfect instrument for its purpose. It has no place in colonic surgery."

Only those buttons made by Tieman, New York, are any good. For gastro-jejunostomy use Reid's modification (a flange on jejunal side, to prevent button dropping into stomach). Button passes in eight days to three weeks. Specially useful for rapid exclusion anastomoses in strangulated hernia. (Fig. 23.)

Fig. 23.

Scattered remarks by Berg on gastric surgery.—He is against exclusion resection (pre-pyloric). Says it was first recommended by V. Eiselsberg. The duodenal contents excite the remaining pre-pyloric part, and produce further secretion from the proximal end (? by hormone).

Berg has found that after gastro-enterostomy only one-tenth of the food leaves by the stoma. (This is against all our experience.) He tried pyloric ligature to remedy this, but found that the passage re-opened. V. Eiselsberg introduced pre-pyloric division, without resection, but with gastro-jejunostomy, as a more permanent exclusion. The results were very bad. Finsterer claims acid reduction by wide excision, especially on lesser curve. But acid secretion is at fundus, not lesser curve. In any case lack of dilution is not altered; what matters is quality, not quantity. (Fig. 24.)

Berg does high sub-total. Recurrence 2 per cent. as against 30 per cent. with gastro-jejunostomy.

Miculicz and Kronlein first devised gastrectomy with retro-colic anastomosis of jejunum to cut

stomach, by animal experiment. Hofmeister took idea from them and applied it to humans. Polya copied Hofmeister, but made it anterior (?).

The worst procedure man can do is jejunostomy for ulcer.

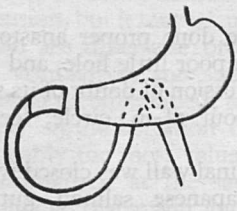

Fig. 24.

Second case.—R.I.H. in girl. Rather conservative removal of sac. Suture of rectus sheath edge to Poupart anterior to cord followed by overlap of external oblique. Seems wrong to me.

Remarks by Berg on Carc. coli.—Wants to leave anal sphincters if he possibly can. Quotes Dukes' pathology. For low ones, abdomino-perineal very mutilating and has mortality of 12 per cent. He does a preliminary cæcostomy. He says this is an excellent operation if the opening is large, and if it is not in the cæcum, but *opposite to the ileo-cæcal sphincter.*

He resects, getting rectum two inches below peritoneum if necessary. For bad risk he closes rectum, brings colon on surface, and implants it later into stump of rectum. When fit, he invaginates colon into rectum.

He is not keen on Miculicz, finds it safe but tedious.

After this I went a tour with Lewisohn. He is a wonderful old chap. Having just retired from the hospital staff, he has chucked surgery and taken up cancer research with equal enthusiasm. He is trying splenic extracts, using doses about 100 times those used heretofore.

Lewisohn gave me a very nice lunch. I then went down to the Chase National Bank, right down town, off Wall Street. First experience of subway, which rattles and swings along at terrific pace, but is the only transport for long journeys. Chase most polite and helpful, in the person of a Greek. Surgical Travellers' telegram caused some misgiving at first. Having been through all the commercial codes, he summoned a Hungarian clerk, who translated it at once. They have a large medical department, with whole-time doctor, on the top floor.

Tuesday, September 28th

Mount Sinai again at 8 a.m. Wonderfully built and equipped hospital, with three sections, private, semi-private and public. About 80 per cent. Jews; medical staff probably all Jews; secretarial ditto; nurses only 10 per cent. There is a travelling track to all departments along which records are sent from a central office. A very complete follow-up system, and an entirely separate diagnostic clinic, where for an inclusive fee (I think 35 dollars) patients are completely investigated and a very full New Lodge sort of report sent out to the doctor. They undertake not to treat the patient within the next two years at the hospital, unless asked by referring doctor.

They seem to do a great deal of transfusing (? the Lewisohn influence). Apparently Lewisohn was the first man to advocate citrate transfusion—see reprints. They have a department entirely for sterilising and preparing transfusions and infusions. A very good translucent rubber tubing, through which bubbles and blood can be seen. I took samples and address.

Berg.—Anæsthetists women. Competent, but do not seem to keep pressure or pulse charts.

1. Old gall-bladder case. Drained previously in acute attack. Settled down from bile to mucous fistula—about a year. Excised old incision, clamps sinus. Dissects gall bladder from fundus down, using knife all the way. Not an advertisement of knife-work exclusively. Cuts cystic artery three or four times. Gets very querulous; difficult case. Puts in pack and drain. (Americans seem to like two things I hate—muscle-dividing incisions and gauze packs in the abdomen.)

He does not like a bridge for gall-bladder operations. Interferes with respiration, and does not help. (First probably true; second only true if man has good retraction to make up for it; Berg has four assistants, later five).

2. Woman about 60 with carcinoma of pelvic colon. Had ascending colostomy eight days ago (hole large, but not valvular, and flush with skin; much mess and skin irritation). Painted all round with iodine, then put gauze over colostomy, then large square of adhesive over gauze (about 5 by 7 inches), painted after fixing with iodine. After this they washed up. (Patient was 63, chart showed still running quite big temperature. Why operate so soon?)

Skin prepared Metaphen; they use this only where skin is sore, or iodine known to irritate.

Splits left rectus about half-way out—long split, very traumatic, one leash of vessels tied. Division of many adhesions (previous colostomy). Mobilises sigmoid very freely from left side with the knife. Mesentery then divided on right side in broad V with knife. Clears upper part of rectum, ties vessels; ties mesentery and cuts off fat from colon where he is going to implant it. Puts controlling clamp across upper part of pelvic colon 4 to 6

inches above where he will divide it later. He makes longitudinal hole in rectum and, holding edges open, passes in sucker, gets it pretty clean. Then cuts rectum across below peritoneal reflection and catches cut edge with four hæmostats and swabs out lumen repeatedly with small swabs (with inefficient colostomy there must be a lot of soiling in all this).

Cuts across colon above growth where cleared, then makes ½-inch incision in anti-mesenteric border (see Fig. 25). He says this is to divide circular fibres; before it he used to get spasm and partial obstruction. He put three stout silk sutures round cut edge, ties all three to curved vaginal sound, and passes it out through anus (caught by Sister). By this colon is pulled 2 inches into rectum. Further invaginated by series of mattresses of Paqenstecher; job very neat when finished; has two needles on each thread. Behind left partly open and drain is brought out here. (Fig. 25.)

Fig. 25.

Change of gloves and towels; fresh pads. Suture of pelvic peritoneum to rectum *below* suture, so as to get any drainage intra-peritoneal. Sutures left leaf of peritoneum to descending colon. No sponge count (Sister says other Mount Sinai surgeons have it). Abdominal wall closed by interrupted sutures of chromic catgut. Drain and pack down to left side of suture line.

Specimen, very localised carcinoma, but quite round lumen, and hardly at all outside wall.

Talk afterwards.—They are seeing a great deal of ulcerative colitis. Much of it is segmental when first seen, lower part especially being free, though some start in sigmoid. If left alone they tend to involve whole colon. Some of the ascending colon cases later spread into lower ileum, but condition is distinct from regional ileitis, of which again they see a lot. (Krohn is a colleague.) Regional ileitis sometimes indicated by spontaneous appearance of a fistula in ano, or recto-vaginal fistula (I saw a young girl with one).

For ulcerative colitis he tries to avoid ileostomy. When distal colon healthy, first stage is ileo-colostomy (lateral), with surface implantation of both ends of excluded colon. Second stage segmented resection of colon, starting proximal end, removing territory of as many arteries as patient will stand, implanting proximal end of part left again in skin. (Fig. 26.)

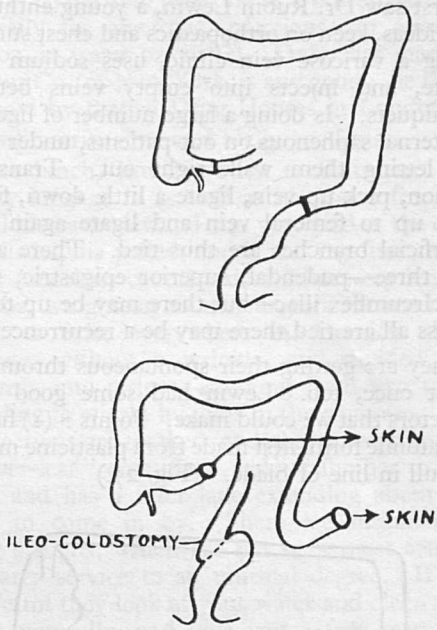

Fig. 26.

Berg is in some way old-fashioned, but he is absolutely sure, and I can imagine his results are excellent. His talk between operations is most interesting, on surgery, politics, or whatever he touches, *e.g.*, a long recitation of conversation with Roosevelt on taxation, with Mayo on the folly of closing up a carcinoma of stomach that might have been resected. I would give a great deal to talk like he does. A thoughtful man with a great gift for the right sort of phrase.

Worked in the afternoon at my paper for Chicago. Massie called at 5.30 and had some very useful advice to give. Dined with him, Carter Braine and Massie's cousins at Village Barn, Greenwich Village. Almost unique show.

Wednesday, September 29th

In despair worked at my fracture paper till I got it finished, and most unsuitable at that. Rushed it down to typist. Came back and had lunch. Then corrected proof and dispatched things, and finally left for Philadelphia by 6 p.m.

train. Stayed Ritz-Carlton. Met Jim again and went to " Benny the Bums," where we dined with Miss Philadelphia 1937.

Thursday, September 30th

Went up to Philadelphia General early. Found Babcock was away and his secretary had parked my note.

First saw Dr. Rubin Lewin, a young enthusiast with ideas, keen on orthopædics and chest surgery. Doing a varicose vein clinic, uses sodium morrhuate, and injects into empty veins between tourniquets. Is doing a large number of ligations of internal saphenous on out-patients, under local, and letting them walk right out. Transverse incision, pick up vein, ligate a little down, follow right up to femoral vein and ligate again. All superficial branches are thus tied. There are at least three—pudendal, superior epigastric, superior circumflex iliac—but there may be up to ten. Unless all are tied there may be a recurrence.

They are getting their spontaneous thromboses up at once, too. Lewin had some good chest retractors that we could make. Points : (1) handle of anatomic form, first made from plasticine mould, (2) pull in line of blade. (Fig. 27.)

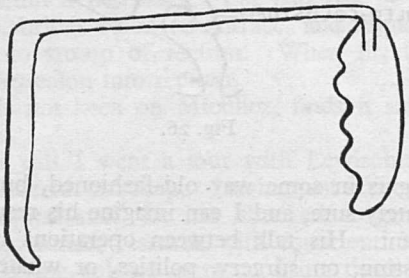

Fig. 27.

Lewin took me up to see Ferguson, who was unfortunately just finishing a list. Case was a hernia done by anterior repair, with interrupted sutures of fine rustless steel wire ; gets them up on first day. Whole thing against my ideas.

This fine steel wire is quite nice. Specimen taken. Seems better than silkworm to me, and on eyeless needles would be great for plastic work. Said to be very cheap.

In wards Ferguson told me about Cattell's operation for cirrhosis with ascites. He simply removes anterior parietal peritoneum. Ferguson has added incisions in posterior rectus sheath to bring omentum into contact with muscle. Sounds much safer than Talma-Morrison.

Very good trolley for records in wards. This has advantage of keeping them separate in another room, but makes them accessible on a ward round. (Fig. 28.)

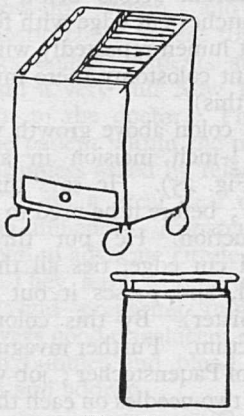

Fig. 28.

Ferguson also showed me the Out-patient Department. They have a complete series of cubicles for examining patients. There is also a good proctoscopic table. The patient stands at this, and is tilted so. No engorgement, and air fills rectum as soon as speculum is introduced. (Fig. 29.)

Fig. 29.

Ferguson took me along to see Ravdin, a short Jewish little man with a puzzling far-away look ; a great talker. We went round the wards ; first a string of gall bladders. He does Kocher, sews up with steel wire and Michel clips ; for stomachs he does right rectus retracting. He does not operate on acute cholecystitis unless driven to.

After-treatment.—Every patient must take ten deep breaths every hour under Sister's eye. Also change sides every hour. Where common duct is drained he has a system that he calls decompressing the C.B.D. ; this is drained to jar with water seal, but half-way is a Y tube of glass, with gauze tied over one limb of the Y to let in air. This Y is hung on any one of a series of cup-hooks screwed in a vertical board fixed to the bed. By varying the height of the Y, bile can be allowed out or made to flow on into duodenum. He says he gets much less sickness and digestic disturbances. (Do we get any ?) Before removing the tube in common bile duct he injects lipiodol, to

be sure there is no stone or obstruction. He finds the conjunction of gall-bladder disease and angina very common. Cholecystectomy relieves or cures the angina. (Fig. 30.)

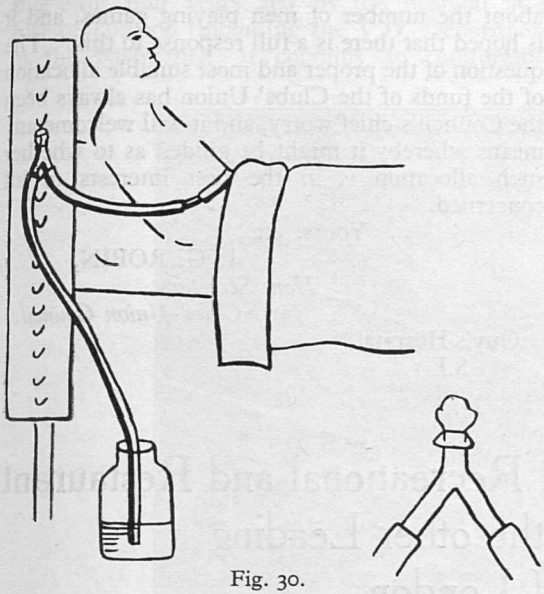

Fig. 30.

When a patient is jaundiced, he has daily estimation of bile pigment in the blood. He thinks it dangerous to operate while this figure is rising or falling, but once a plateau has been established, at whatever level, it is much safer.

He thinks the safety factor in the liver against intoxication is not a high glycogen content, but a low fat one. In hepatic disease the fat rises from a normal of about 7 per cent. up to possibly 40 per cent. Adding carbohydrates diminishes the fat.

His preparation for operation in gall-bladder patients is therefore a diet high in carbohydrates, 10 to 20 per cent. of total calories in protein, no fat. He usually leaves the gall bladder at operation if he has to open the common duct. (Ferguson said the same.)

He transfuses all jaundiced patients before, and usually after, operation.

Three Periods.	*Treatment.*	*Hæmorrhage. Per cent.*	*Deaths. Per cent*
1922-27	Glucose and calcium	19	8½
1927-32	Glucose only, Calcium stopped	18	2
1932-37	Transfused	19	1

These figures suggest that patients bleed equally, but do not die with transfusion. Does not seem to me to mean much; it is the post-operative transfusions that bring down the deaths—and these have probably all come in the last series. They now go on transfusing till they are right, up to 42 times in one case.

He uses citrated blood, and often keeps it on ice up to three days. He has used post-mortem blood for negroes, for whom the ordinary donor is unwilling to be bled.

He is trying zinc peroxide as a bowel wash-out, especially for anærobic infections—an emulsion of ½ oz. in water oz. iii (?). Only that made by Dupont Co., of New York, is any good; he thinks it is sold by British Drug Houses in London.

Ravdin strikes me as a really good man.

After lunch, Jim drove me to Baltimore. To get my luggage in as well as his was a feat, and hid all his back view. I was very glad of the drive as Philadelphia palled, and it was my first chance to see American countryside. After very lengthy suburbs, we got on to the magnificent road that seems to exist everywhere in America. It is concrete, without a wrinkle, and divided permanently into stripes, anything from two to six according to width, by joins in the concrete. All intersections are marked, and they have plenty of "clover-leaf" crossings. Side traffic has to stop dead, and has a filter lane extending about 200 yards to come in by. There are innumerable filling stations, which are not only most artistic, but carry service to an unusual degree. If you buy petrol they look at your water and clean your screen naturally, and give you a free map, but they are very polite if you come in to ask the way, and once when Jim came in for a new plug and they found he only needed a lead screwed up, they were charming.

The countryside is rather like a neglected England. The absence of boundaries between house properties, that seemed so charming in Boston, takes on a different aspect where each is equally untidy, and no man's land is used as a rubbish dump. The houses all along looked just dumped, not planned. Most are wood. The countryside might be England, with two differences—the fields look as if they were not used for anything, and are covered with long straggly grass and weeds; a clean cropped field is most uncommon, and hedges are fewer, trees more, and all over the place instead of in coppices and along hedges. It does all look dreadfully untidy, and one would like to know the farming economics and what they do with these fields.

The Emerson Hotel is the best yet. Both wireless and writing desk for 3 dollars 50. A message from Dean Lewis.

(*To be continued.*)

Correspondence

The Questionnaire

To the Editor of the Gazette

SIR,—With reference to the subject matter in "Passim" in your last number, I am asked by the Clubs' Union Council to say that, after considering the recommendations made for a Representative Students' Council, it would like, at this early stage, to express a welcome to any movement which will help to improve the conditions of the students at Guy's Hospital. For many years it has been dissatisfied with the present accommodation for the Students' Club, and is in agreement with your contention that some such scheme as you propose is probably the best way for getting something actually done.

The Clubs' Union Council will be very interested to know the result of the questionnaire about the number of men playing games, and it is hoped that there is a full response to this. The question of the proper and most suitable allocation of the funds of the Clubs' Union has always been the Council's chief worry, and it will welcome any means whereby it might be guided as to whether such allocation is in the best interests of all concerned.

Yours, etc.,

I. G. ROBIN,
Hon. Secretary,
Clubs' Union Council.

Guy's Hospital,
S.E.1.

An Account of the Residential, Recreational and Restaurant Accommodation at the other Leading Hospitals of London

By P. M. F. Bishop, Esq.

EACH of the following hospitals and schools was visited with the object of comparing the accommodation at Guy's with that provided elsewhere. In each case the Dean, the Secretary of the Medical School or some similar authority provided the information, and in each case the actual premises were inspected. The order in which the hospitals are described is the order in which they were visited.

1.—ST. BARTHOLOMEW'S HOSPITAL AND MEDICAL COLLEGE

New quarters have been recently acquired for the Medical College on the site of the Merchant Taylor's School in Charterhouse Square. This scheme has cost just over £200,000. Towards this, £40,000 was subscribed by Old Bart.'s men and £14,000 by members of the Staff. The Hospital Residents are housed in rather antiquated quarters in the hospital itself, and have their own dining-room, though they are served with lunch and tea in the hospital dining-room, which is an underground room lined by white tiles and accommodating about 200 at one sitting. There are usually two sittings at lunch. There is a large Common Room and a smaller adjoining room used for writing and small committee meetings. These are situated above the dining-room and are for the use of members of the Clubs' Union. Very shortly entirely new premises are being built on the hospital site, and the accommodation described above will be provided in these new premises and will be entirely modernised.

In Charterhouse Square there is another Common Room, writing room and restaurant which can accommodate 200 at one sitting. There are two squash courts available at 1*s.* per hour per pair of players, a fives court, a gymnasium which is mainly used for boxing, and a rifle range.

Plans have already been drawn up for the erection of a residential college for students to be built on the Charterhouse site. This building is expected to cost about £77,000 and will accommodate about 80 students. In the basement will be a full-sized swimming-bath; the ground floor will be occupied by Common Rooms, and the residential quarters will be on the three floors above. The execution of this scheme is being delayed until the remaining £20,000 on the Charterhouse Square £200,000 scheme has been arranged for. The raising of money for and erection of the new residential college will then be embarked upon.

2.—THE LONDON HOSPITAL AND MEDICAL SCHOOL

The Hospital Residents are housed in a separate hostel designed by Mr. Edward Maufe, F.R.I.B.A., and built nine years ago by the hospital at a cost of £60,000 (including the V.D. Department in the basement). It contains 40 comfortable bed-sitting rooms with hot and cold water, one large compactom wardrobe and one large hanging cupboard, a comfortable bed, a writing table and bookcase, a desk-chair and a comfortable leather armchair. There are 12 bathrooms, a large sitting-room, a dining-room, and a billiard room. This hostel is maintained entirely at the expense of the hospital.

There is a separate dining-room in the hospital for the use of members of the Staff only.

In the Medical School there is a dining-room which is comfortable and up to date and seats about 150. There is also a large Common Room, a large library and two squash courts. The number of medical students is about 320.

Students Hostel, London Hospital *By Courtesy of London Hospital*

There is also a separate Students' Hostel, which was opened in 1935. It is not yet completed, but, when finished, will accommodate 75 students and will have cost £37,000, of which £12,000 was subscribed by old London men. The rooms are in the form of bed-sitting rooms and are light, comfortable and modern. There is

a Common Room and a dining-room to seat 60, two squash courts on the top floor and a roof garden. The charge for board and lodgings, including breakfast and dinner and lunch on Sundays, is 35*s*. to 40*s*. per week. The project is not run at a loss, though £950 per annum is being paid out in interest and amortisation on the money borrowed.

There is a small gymnasium in the school, but in the Massage Department arrangements are made for "keep-fit" classes, etc. These are open to all students and are in charge of a special physical training instructor.

There is an excellent modern full-size swimming bath provided for the nurses by Sir Edward Meyerstein, which is also used by the students.

3.—ST. MARY'S HOSPITAL AND MEDICAL SCHOOL

The new medical school was built five years ago at a cost of about £500,000 and includes the Sir Almroth Wright Inoculation Wing, all the departments and laboratories of the school as well as the Students' Club premises and an excellent and up-to-date full-size swimming bath fitted with a filtration plant which changes the water every four hours and an ultra-violet ray plant which irradiates the water. A number of large donations, such as £60,000 from Lord Beaverbrook and a large sum from Lord Revelstoke, helped towards the cost of erection of the school.

There is a garage which will accommodate 50 cars and which is at the disposal of the students.

The Students' Club premises consist of a restaurant which will seat 140 at one time, a Common Room about the size of our reading-room, a small gymnasium, a billiards room and a squash court. The number of medical students is 300 to 400.

The Residents have quarters in the hospital. These consist of 13 sitting-rooms and 13 bedrooms each with a superficial area of about 144 square feet. These rooms are rather similar to the rooms in the Guy's College. There is also a rather uncomfortable dining-room in which all the Residents dine at one table, and which contains a darts board. There are three bathrooms for the 13 Residents.

4.—CHARING CROSS HOSPITAL AND MEDICAL SCHOOL

The Residents' quarters, which are in the hospital, were not available for inspection. The Residents have a separate dining-room. The quarters consist of bed-sitting rooms with a few separate bedrooms and sitting-rooms for senior Residents. There is one Common Room.

The Students' Club premises in the school consist of a Common Room about half the size of our Reading-room and very old-fashioned, and a refectory to seat 60 with a ping-pong table and darts board. The number of medical students is fixed at a maximum of 120, all of whom are in the Clinical period.

There is a scheme for rebuilding the whole hospital and the medical school on a different site, and a separate residential hostel containing 40 rooms is contemplated. This is not to cost more than £25,000. The Clubs' Union is combined with that of the Royal Dental Hospital. Squash, swimming, etc., are all obtained outside the premises of the school and hospital.

5.—WESTMINSTER HOSPITAL AND MEDICAL SCHOOL

These are being entirely rebuilt on a new site in Horseferry Road. The school is completed at a cost of £110,000 and was occupied at the beginning of this year. Towards this sum the Staff has contributed handsomely, and there are a few large individual donations such as £10,000 from Sir Edward Meyerstein and £14,000 from an anonymous lady donor. The whole building is completely modern and admirable.

The hospital's Residents are housed in the school building. Their quarters consist of three flats, each containing seven bedrooms (with hot and cold water, gas fires, and roomy compactom wardrobes), two baths, and two W.C.'s and one sitting-room. In addition, there is one large Common Room for the use of all the Residents.

The Students' Club premises consist of a Common Room about three-quarters of the size of our Reading-room, which is very comfortably furnished, a bar which is run at a good profit and contains a dart board, an excellent billiards room, a refectory which would seat 100 persons, and the catering for which is in the hands of the Students' Club, a large locker room, six shower baths, five W.C.'s, ten urinals, and 12 basins, a gymnasium about 80 ft. by 20 ft. suitable for gymnastics, boxing, fencing, etc., and a squash court.

The maximum number of medical students is 120, all of whom are in the Clinical period. There is a large public swimming-bath in close proximity to the hospital.

6.—ST. THOMAS'S HOSPITAL AND MEDICAL SCHOOL

St. Thomas's House was erected by the hospital at a cost of about £60,000 in 1927. The Amalgamated Clubs (Clubs' Union) pay £800 per annum in rent to the hospital for the premises occupied by them.

There are residential quarters for 50 students and 11 Residents. The remaining Residents are

accommodated in the hospital itself. Each student or Resident has a bed-sitting room, furnished with a compactom wardrobe, a comfortable leather armchair which cost £11, a table, a table chair, a bookcase and a comfortable bed. The rooms are centrally heated. There are three baths to each floor of 15 to 18 rooms, as well as 16 wash-basins and two lavatories. Each Resident has his own telephone.

The Club rooms consist of one very large and fine Common Room, about 50 by 120 square feet, a small bar containing a darts board, an excellent billiards room, a cloakroom to accommodate 200 to 300, which is considered inadequate, 11 W.C.'s and eight urinals, and a restaurant to seat about 200.

Two squash courts are available and were the gift of Dr. Hudson. There is a small gymnasium in the Medical School. There are between 400 and 500 medical students.

7.—UNIVERSITY COLLEGE HOSPITAL AND MEDICAL SCHOOL

The hospital's Residents are provided with separate bedrooms and sitting-rooms. These, of which there are 25, are situated in the Residents' Home. There is also extra accommodation for nine students who have to be on duty. There are two baths to each five rooms. There is a nice Common Room which is oak-panelled and 20 by 40 feet square. The Residents have their own dining-room, which is about the same size and is nicely furnished. All their meals are served in this room. This building was erected by the hospital for its Residents in 1926.

The Students' Club premises consist of a refectory to seat 150, where breakfast, lunch and dinner are served. The catering is run by the school and the profits are voted to various students' activities. In addition, there are three Common Rooms, one large one, one smaller writing or silence room, and a small games room. There is also a squash court. The number of medical students is 250.

The Students' Hostel consists of three houses in Gower Street. It was first occupied for the purpose in 1930. It contains 30 bed-sitting rooms, rather of the boarding-house type, with hot and cold water in each room. There are three lounges, not very nicely furnished, and a billiards room. Students are charged 35*s*. to 40*s*. per week and provided with breakfast and dinner, and lunch on Sundays.

8.—ST. GEORGE'S HOSPITAL

The number of students is restricted to 90 or 100, and they are all in the Clinical period. There is no Students' Hostel, and the Students' Club premises consist of a small and old-fashioned Common Room and an equally old-fashioned dining-room to seat 40. The profits of the catering go to the Club itself. There is no squash court, gymnasium or swimming-bath.

The Residents are housed in the hospital itself in a house looking out on to Knightsbridge called the "Cottage." Twenty Residents, including casualty officers and two midwifery students, are given bed-sitting rooms, which are quite large and airy, but furnished in very old-fashioned style. The Resident Medical Officer and two surgical chief assistants are given a bedroom and sitting-room each. There is one Common Room, which is the size of one of the ground-floor rooms of such a Knightsbridge house, and one dining-room which will not accommodate all the Residents at one time. Breakfast, lunch and tea are served in this dining-room and dinner in the Board Room of the hospital.

It is hoped that the whole hospital and school will shortly be rebuilt and extended, but there is no immediate prospect of such an event.

9.—MIDDLESEX HOSPITAL

The Residents' House was opened in 1931, and in 1936 extra floors were added to accommodate 33 resident students, including four externs. The original building—the ground and first three floors—cost £35,557 (which included demolition of shops standing on the site). Three additional floors were added for £13,700, plus £1,474 for a squash court, which was presented by the Middlesex Hospital Club. The total cost of the building is just under £50,000. It provides 63 good-sized bed-sitting rooms, containing a wardrobe, hot and cold taps, a desk, armchairs and modern comfortable divan beds. There is a bathroom to every six bedrooms, two billiards rooms, one for the students and one for the Residents, a nice Residents' Common Room, about the size of ours and containing a piano, and a large dining-room which would seat 100 comfortably. The food is supplied from the hospital kitchens and is excellent. The students pay 35*s*. per week, which includes breakfast and dinner and tea on Saturdays and Sundays.

In the Medical School there is a restaurant which seats 140 and is considered inadequate in size. About 220 lunches are served each day. This restaurant is open from 10 a.m. to 5.30 p.m. There is also a small sandwich bar which will accommodate 60 and which is closed in the summer. The catering profits are about £400 per annum, and are donated to various students' activities. The restaurant has been open for ten years, and is to be rebuilt and enlarged when the whole school is rebuilt in two years' time. The number of students in the school is 365.

ACCOMMODATION FOR HOSPITAL RESIDENTS

Hospital	*Number of Residents*	*Where Quartered*	*Sleeping Quarters*	*Common Rooms*	*Dining-rooms*	*Baths*	*When erected*	*Cost*	*Condition*
Bart.'s	25 resident 25 non-resident	Hospital	Bedrooms and Sitting-rooms	Billiards rooms	Separate	8 *(1 : 4)	1912	Part of out-patients' block	Good, better than average.
London	40	Hospital. Separate hostel.	Bed-sitting rooms. Airy and comfortable.	Large sitting room. Billiards room.	Separate.	12 (1 : 3)	1929	£60,000 (including V.D. Dept.).	Good.
St. Mary's	13	Hospital.	Bedrooms and sitting-rooms.	No.	Old-fashioned.	3 (1 : 4)	—	—	Moderate to bad.
Charing Cross	15	Hospital.	Bed-sitting rooms and bedrooms and sitting-rooms for seniors.	One.	Separate.	—	—	—	Poor.
Westminster	21	School.	Bed-sitting rooms.	Four.	No.	6 (1 : 3½)	1938	—	Excellent.
St. Thomas's.....	30	11 in hostel. Rest in hospital.	Bed-sitting rooms.	Lounge.	Large.	4 (1 : 7)	1936	—	Very good.
U.C.H.	25	Hospital.	Bed-sitting rooms.	Good.	Good.	10 (1 : 2½)	1926	—	Good.
St. George's	20	Hostel.	Bed-sitting rooms.	Moderate.	Poor.	3 (1 : 7)	—	—	Poor to moderate.
Middlesex	30	Hostel.	Bed-sitting rooms.	Good. Billiards room.	Good. Seat 100.	5 (1 : 6)	1931	£35,557	Good.
Guy's	32	Hostel.	Bedrooms. Sitting-rooms.	Residents' room, good.	Not separate.	5 to 60. (1 : 12)	1890	£21,000	Moderate to bad.

*Ratio of baths to number of residents.

RESIDENTIAL QUARTERS FOR STUDENTS

School	*Number of Students*	*Where Quartered*	*Sleeping Quarters*	*Common Rooms*	*Dining-rooms*	*Baths*	*When erected*	*Cost*	*Charge per Week per Student*	*Condition*
Bart.'s	80	Hostel.	Bed-sitting rooms.	Whole ground floor.	Yes.	—	To be erected shortly.	£77,000	—	Will be very modern.
London	75	Hostel.	Bed-sitting rooms.	Good.	Seat 60.	12 *(1 : 6)	1935	£37,000	35*s.* to 40*s.* per week.	Very good.
St. Mary's	NOT	PROVIDED.								
Charing Cross	NOT	PROVIDED.								
Westminster	NOT	PROVIDED.								
St. Thomas's	61 (50 students)	Hostel.	Bed-sitting rooms.	—	—	12 (1 : 5)	1927	£60,000 (including Students' Club).	40*s.* per week.	Good.
U.C.H.	30	Hostel.	Bed-sitting rooms.	3, not very nice billiards.	—	10 (1 : 2½)	Occupied in 1930.	—	35*s.* to 40*s.* per week.	Moderate to bad.
St. George's	NOT	PROVIDED.								
Middlesex	33	Hostel.	Bed-sitting rooms.	Common room. Billiards.	Yes.	6 (1 : 6)	1936	£13,700	35*s.* per week.	Good.
Guy's	28	Hostel.	Bed-sitting rooms.	Not separate.	—	5 to 60 (1 : 12)	1890	£21,000 (including Students' Club).	About £1 per week. Food extra.	Moderate to bad.

* Ratio of baths to number of students.

School	*Number of Students*	*Where situated*	*Common Rooms*	*Dining-rooms. Nature.*	*Accommodation*	*Catering*	*Profit*	*Squash Courts*	*Swimming Bath*	*Gymnasium*	*When erected*	*Condition*
Bart.'s	800	School and Hospital	Two large. Two small.	In Hospital. In School.	200 200	—	—	2	— (To be provided in new Hostel.)	Good.	1935	Moderate
London	320	School.	Large Common Room. Large Library.	Comfortable.	150	Hospital Steward.	To School	2 (in Students' Hostel).	Full size (Nurses). Excellent.	Small.	—	Good.
St. Mary's	300-400	School.	Moderate. Billiards good.	Moderate.	140	School.	School.	1	Full size. Excellent.	Small.	1933	Moderate to good.
Charing Cross	120	School.	One, poor.	Poor.	60	School.	School.	—	—	—	—	Bad.
Westminster	120	School.	Common Room. Billiards Room. Bar.	Good.	100	Students' Club.	Students' Club.	1	—	Good.	1938	Good.
St. Thomas's.....	400-500	Hostel.	1 very large. Bar. Billiards.	Good.	200	Company.	Students.	2	Good, in Nurses' Home.	Small.	1927	Good.
U.C.H.	250	School.	Large. Small writing. Small games.	Moderate	150	School.	Students.	1	—	—	—	Moderate.
St. George's	90-100	School.	Small and dingy.	Small and dingy.	40	Company.	Students.	—	—	—	—	Bad.
Middlesex	365	School.	Large. Small. Moderate.	Restaurant, Snack Bar.	140 60	Company.	Students.	1	—	Moderate.	1928 (to be rebuilt).	Moderate to good.
Guy's	800	College.	Moderate-sized. Reading-room too small.	Restaurant "Spit."	100 100	Company.	Students.	1	Nurses' available. Poor.	Inadequate.	1890	Moderate to bad.

Hospital Appointments

THE following appointments and reappointments have been made by the Court upon the recommendation of the School Council; duties to commence on October 1st, 1938 :—

Assistant Director (Female) of the Venereal Diseases Department—

Miss M. Rawlins, M.B., B.S., reappointed for one year.

Medical Officer (Male) in the Venereal Diseases Department (also attached to the Physician in Charge of the Skin Department)—

Dr. D. Erskine, M.D., D.P.H., reappointed for one year.

Medical Officer (Male) in the Venereal Diseases Department (also attached to the Surgeon in Charge of the Genito Urinary Department)—

Mr. A. G. Johnson, L.R.C.P., M.R.C.S., reappointed for one year.

Medical Officer (Female) in the Venereal Diseases Department—

Miss M. R. Levack, M.B., Ch.B., reappointed for one year.

Hæmatologist to the Hospital—

Dr. R. L. Waterfield, M.B., B.S., M.R.C.P., reappointed for one year.

Senior Assistant Bacteriologist—

Mr. E. Sayle, M.B., B.S., reappointed for one year.

Junior Assistant Bacteriologist—

Mr. W. F. Dunham, M.B., B.Ch., L.R.C.P., M.R.C.S., appointed for one year.

Additional Assistant Bacteriologist—

Dr. E. H. Koerner, D.M., M.B., B.S., reappointed for one year.

Registrar and Statistician in the Radium Department—

Mr. T. H. Hills, M.B., B.S., L.R.C.P., M.R.C.S., reappointed for one year.

Chief Clinical Assistants and Registrars in the Ear, Nose and Throat Department—

Mr. A. Bowen-Davies, M.B., B.Ch., F.R.C.S., reappointed for one year.

Mr. J. V. Clark, L.R.C.P., M.R.C.S., appointed for two years.

Chief Clinical Assistant and Registrar in Ophthalmological Department—

Dr. P. M. Moffatt, M.D., D.O.M.S., reappointed for one year.

Mr. N. W. Gardener, L.R.C.P., M.R.C.S., appointed for two years.

Mr. R. F. Jamieson, M.B., Ch.B., appointed for two years.

Chief Clinical Assistant and Registrar in the Radiotherapy Department—

Mr. T. H. Hills, M.B., B.S., M.R.C.S., L.R.C.P., reappointed for one year.

Chief Clinical Assistant and Registrar in Medical Electricity Department—

Mr. H. N. Garrus, L.R.C.P., M.R.C.S., appointed for two years.

Chief Clinical Assistant and Registrar to Medical Out-Patients—

Mr. T. E. Howells, M.B., B.S., L.R.C.P., M.R.C.S., appointed for one year.

Chief Clinical Assistant and Registrar in the Neurological Department—

Dr. S. Behrman, M.R.C.P., reappointed for one year.

Instructor of Patients with Defective Speech—

Mr. H. St. J. Rumsey, M.A., reappointed for one year.

Chief Clinical Assistant and Registrar in Department of Psychological Medicine—

Dr. F. W. Brown, D.M., M.R.C.P., reappointed for one year.

Chief Clinical Assistant and Registrar in the Children's Department—

Mr. N. M. Jacoby, M.B., B.S., M.R.C.P., M.R.C.S., reappointed for one year.

Clinical Assistants in the X-Ray Department—

Dr. J. A. Brocklebank, M.D., D.M.R.E., appointed for two years.

Mr. O. W. Robinson, L.R.C.P., M.R.C.S., D.M.R.E., reappointed for one year.

Dr. C. F. Cosin, M.D., L.R.C.P., M.R.C.S.,, reappointed for one year.

Dental Officer to Salomons Welfare Centre—

Mr. F. A. Walker, L.D.S., reappointed for one year.

Dental Anæsthetist to Salomons Welfare Centre—

Dr. E. H. Rink, B.M., B.Ch., reappointed for one year.

What Do You Think ?

SOLUTIONS TO No. 6

We award the One Guinea Prize to Mr. W. A. Osborn, Rotunda Hospital, Dublin, for his solution to Problem No. 6.

DR. Y. was quite clearly in the wrong. The law in England is such that any person making statements, either true or false, which are in any way injurious to the livelihood of another is liable to prosecution on such grounds as defamation of character and loss of employment. Thus, Miss Anne certainly had a *prima facie* case.

Furthermore, Dr. Y. was guilty of a breach of professional etiquette in openly discussing one of his patients with another person. Having made his diagnosis and presumably made arrangements for treatment, he was under no legal obligation to carry the matter any further. Doubtless he felt that he had a duty to the community, and in particular to Mr. S. and any other members of his household, since the secondary eruption of syphilis is contagious. Everyone would sympathise with Dr. Y., knowing, as he did, that his patient was suffering from a contagious disease which was a potential source of danger to others, and it is interesting to note, in this connection, that in America the law would have protected him fully in the action he took. There, syphilis is a notifiable disease.

There were, however, other courses open to him. He could have said to Mr. S., when the latter came to him, " I have informed Miss Anne as to the nature of her complaint," and left it at that. Again, he might have said, " Miss Anne is suffering from a skin condition which is contagious and which will take some time to cure."

This latter would seem to be the better course to adopt, because Mr. S. was already aware that there was something wrong with her skin and he was almost sure to ask, " Is it contagious and how long will it last ? " This would surely appease his conscience and put the onus of further action on Mr. S., without even suggesting that she should be discharged.

OUR SOLUTION TO NO. 6

ANNE had a proper case for Dr. Y. to answer, for it was a slander for him to say of her that she had venereal disease—*whether she had it or not*—and there would be no need for her to show that she suffered special damages that could be assessed in money ; Dr. Y. committed a second offence in advising Mr. S. to be rid of her services, for this was no part of his professional duty. He might say he thought it unwise, or that he himself would not retain the services of an employee in such a condition, but to tell the master bluntly that she should be discharged at the shortest possible notice was not his province.

Remember, however, that Mr. S. went to Dr. Y. for an opinion on a medical matter, and was therefore in the position of a patient so far as it concerned his own health. It was held that Dr. Y. was acting in his (Mr. S.) patient's interests in telling him of the girl's condition ; the action for slander failed, but narrowly only, for Dr. Y.'s subsequent advice to be rid of her services smacked faintly of malice, and this would have put a different complexion on the matter. She lost her action for slander, but got a trifling sum for lost employment.

It was fortunate that Mr. S. did not call in Dr. Y. and order Anne to have herself examined, for unless with her full consent the examination would have constituted an assault ; remember, however, that Anne went herself to Dr. Y.

Anne was found dead with her head in the gas oven two days after the action hearing. Dr. Y. remarked rather ruefully that he had not anticipated the far-reaching effects of a piece of advice he gave with such easy assurance at the time.

Author's Note.—Many of our correspondents appear unaware of the importance of the italics (above). We point out—mainly to illustrate the every-day nature of these " What do you think ? " problems—that they are not, as some readers have assumed, imaginary, but actual experiences in medico-legal practice.

Sport

Cricket

GUY'S v. INDIAN GYMKHANA

ON Saturday, July 9th, the Hospital side was still depleted by examinations and holidays, and then rain came to ruin what remains one of our most attractive fixtures.

The Gymkhana opened very slowly to some accurate, but not very aggressive, bowling by Morey and McClintock, the latter actually being allowed to start with four maiden overs. But one wicket had fallen at eleven. Basant Singh and Merchant played steady cricket until at 87 the former gave McClintock a simple return catch.

Jehangin Khan never looked himself, and was several times deceived before O'Gorman had him caught at cover, and about twenty runs later he bowled Merchant and had Pini well caught by Birks on the mid-wicket boundary in the same over. At 134, McClintock had completed his first spell of 20 overs, 7 maidens, 34 runs, 2 wickets. They were now beginning to hit out and speed up the game, and when Nayuda was caught by Martin off McClintock, who had returned to the bottom end, Jehangin declared, leaving us just under two hours to get 185. Jagdale was not out 24. This was a difficult, but by no means impossible task, but we started badly, O'Gorman being comprehensively beaten by Puri's speed at 4. Hughes and Thomas, though, batted confidently, even if the former was once lucky to survive a fine googly from C. S. Nayuda. But at 23 for 1, with Hughes 16 not out, the rain came down for good.

Indian Gymkhana.—184 for 6 (Merchant, 65; Basant Singh, 41). McClintock, 3 for 44; O'Gorman, 3 for 96.

Guy's.—23 for 1. Rain stopped play.

GUY'S v. OLD WIMBLEDONIANS

WE were glad to have Knight back for this Sunday game, but were still weakened by O'Gorman and Coffey turning out against us, of course. The former beat Morey to the toss, and opened with Skidmore, who was unable to cope with Knight, being bowled at 7. O'Gorman scored freely, despite one or two uppish shots off Knight, until at 36 he was bowled by one that came back very sharply on a good length.

When McClintock relieved Gadd, he was again respectfully treated, but his patience outlasted the batsmen's, several wickets falling to simple balls owing to the batsmen's predilection for what could only be described as "yahoos."

Knight was still bowling excellently, but at 69 Morey came on in pursuit of the last two wickets. He got one, but the last man elected to play his do-or-die shot to McClintock, and they were out for 79.

The easiness of our task was somewhat decreased by Hughes being surprisingly run out at 14. But Fuller played some powerful drives, and it was 34 before Thomas was well caught by Scarfe off O'Gorman. It was unfortunate that Lawlor, their other slow bowler, had pulled a muscle, but O'Gorman was inexpensive, keeping the runs down well.

At 38 Fuller was l.b.w. for 21, but Wooldridge kept the score going, getting 19 and 10 respectively before leaving at the same total. Martin fell to O'Gorman's googly, but Morey hit off the runs, and we had won by four wickets. He hit himself out, and Gadd went on by sound open cricket to get 28, while McClintock made a "pawky" 12, to win his bet from the umpire, who unfortunately had no chance to give him out, before returning to his regular office of scorer. Knight was, of course, not out, and we had 136 on the board.

Old Wimbledonians.—79 (O'Gorman, 21). Knight, 4 for 42; McClintock, 5 for 19.

Guy's.—136 (Fuller, 21; Gadd, 28).

GUY'S v. CRANLEIGH

WE took a strong side to play the village, and it was a pity that they were not at full strength, as the game was a trifle one-sided. Our captain disappeared schoolwards on our surprisingly punctual arrival, and our numbers were levelled by a recruit from the Staff, L. H. Garrett. So he could not complain when Birks won the toss in his absence. Finding himself able to express a little moisture from the pitch, he put them in. This fact was carefully kept from the captain, as the wicket was absolutely plumb, and anyway Morey had not won the toss for the last five games anyway.

Morey bowled Chandler at 20, but it was 54 before the next wicket fell, Gray being very well stumped by Thomas off O'Gorman, a combination which again proved successful.

Lunch was taken at 94 for 4, and in his first over afterwards Morey took two wickets with successive balls. Then Attwell, who alone had been batting really well, fell to an Oundle combination, being nicely caught by Chase off Garrett. At 128, Thomas claimed his third victim, and Cranleigh were all out.

O'Gorman was dismissed cheaply, but then Hurst and Chase took complete command of the situation, scoring freely despite numerous changes of bowling. But at 90 the latter tried to go a little too fast, and then Morey played a careful game, while Hurst went on his way to a fine 78, though he was only out when we were 40 runs past their total.

The bowling was so completely collared that, apart from some magnificent hooking, the chief interest was the excellent fielding of Attwell. Morey, who had injured his thumb attempting a difficult return catch, found anything but the hook painful; only the blandishments of the man who had drawn him in the sweep had persuaded him to bat, but he collected 40 runs before trying it once too often. And at 193 for 5 we declared, to give them another knock, an offer which was declined.

Hospital Information, etc.

Pass List

CONJOINT BOARD.

FIRST EXAMINATION.

June, 1938.

J. H. Capon
H. V. Cockburn
S. Coffey
S. N. Cole
D. W. A. Drew
J. A. Gillett
A. W. Hind
V. J. McLean
R. G. M. Stobie

Physiology.

H. W. Bunn
J. H. Capon
H. V. Cockburn
S. N. Cole
D. W. A. Drew
M. H. Gallop
J. A. Gillett
J. H. G. Halliday
A. W. Hind
W. J. Lewis
V. J. MacLean
G. Macvicar
D. S. Orr
H. G. Phillips
R. G. M. Stobie

Pharmacology.

B. N. Coffey
D. S. Foster
J. A. Gillett
A. W. Hind
N. W. R. Lucas
D. W. Mayman
A. E. Ram
G. W. Taylor

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FINAL EXAMINATION.

L.D.S.

June, 1938.

Surgery.

PART I.

O. B. Balean
B. A. Bharucha
C. H. Blockley
E. K. Breakspear
W. F. A. Butcher
N. F. Clarke
J. A. Dossor
F. J. Edgell
K. A. Irish
K. P. Liddelow
D. J. Lyon
M. Malleson
A. Middleton
R. D. Pett
A. M. Platt
L. J. Price
L. A. G. Quick
J. M. Ross
R. S. Stevens
C. W. Turner
L. J. Wallace
E. R. T. Walmsley
L. A. Wakeford
J. B. Wilkes

Dental Surgery.

PART II.

R. A. Abbey
R. G. Bird
W. H. Bransom
E. J. A. Clarkson
P. H. Crampton
H. D. Freeman
D. C. Jackson
S. G. Miron
L. J. Moir
W. S. Palin
B. T. C. Probert
L. A. G. Quick
V. Ratlee
J. M. Ross
C. E. Sharland

SOCIETY OF APOTHECARIES OF LONDON.

PRE-MEDICAL AND PRIMARY EXAMINATIONS.

July, 1938.

Anatomy.

W. J. Lewis
F. G. Stoddart

Physiology.

F. G. Stoddart.

FINAL EXAMINATION.

June, 1938.

Medicine.

I. J. Mathias.

Forensic Medicine.

I. J. Mathias.

Midwifery.

R. Rowlandson.

UNIVERSITY OF LONDON.

SECOND EXAMINATION FOR MEDICAL DEGREES.

PART II.

(FOR INTERNAL STUDENTS.)

July, 1938.

C. L. F. Beaton
P. W. Clarkson
P. S. Cuthbertson
C. N. d'E. Eastes
P. R. C. Evans
L. P. R. Fourman
B. J. Fowler
R. Franey
B. Frank
J. A. Gillett
A. W. Hind
R. T. Hinde
E. O. Hohn
M. P. Hutchinson
H. L. Joyce
R. U. F. Kynaston
J. K. Martin
L. G. C. Martin
H. A. Ripman
E. Robinson
F. R. Russell
R. M. Sharpe
P. A. J. Smith
R. South
C. C. Spicer
J. S. Stead
R. Tilley
W. R. Watson
J. Williams
J. A. Williams
C. F. Wright

M.S. EXAMINATION.

July, 1938.

BRANCH I.

Surgery.

S. H. Wass.

Papers by Guy's Men

Ogilvie, W. H. Intrathoracic reconstruction of the lower œsophagus: Note on an unsuccessful case. *Brit. J. Surg.*, 1938, xxvi, 10.

Turner, Philip. Acute infective osteomyelitis of the spine. *Ibid.*, 71.

Slesinger, E. G., and Jemson, J. Carcinoma of the stomach and the rectum in the same patient. *Ibid.*, 201.

Handley, W. Sampson. Chronic mastitis and breast cancer: A family history of five cases. *Brit. Med. J.*, 1938, ii, 113.

Staz, J. Dental caries in South Africa. *S. Afr. J. Med. Sc.*, 1938, iii (Supplement).

Appointments

C. G. Baker, M.D., M.R.C.P., appointed Physician, Selly Oak Hospital, Birmingham.

Changes of Address

C. G. Baker, M.D., M.R.C.P., Selly Oak Hospital, Birmingham.

N. L. Maxwell Reader, M.S. (Lond.), F.R.C.S. (Eng.), 42, Murray Road, Wimbledon Common, S.W.19. *Wimbledon* 1345.

EDS. {H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — *13th August* 1938 — *Number* 1306

PASSIM

THIS is August: a month of small endeavour when thoughts turn away from the routine of toil, from the patients and their ills from dissections and from experiments, from auscultation and percussion and turn to the verdant charm of the summer countryside, to crowded beaches with their gay half-naked throngs, to small rocky coves and the smell of tarred rope and the salty tang of the sea spray, to tennis courts and to the green carpeted golf courses where the only sound that breaks the sultry air is the sharp click of a well-hit drive, to the river punt in the calm of a summer evening. This, we say, is August, a month of small endeavour.

Last month, when there was yet life in our midst, we advanced a thesis concerning the students of Guy's and their living conditions, and we sent forth a questionnaire that all might say what they thought upon a topic which concerned them closely. However, it was timed with such apparent shortsightedness, that no sooner was it issued that the intended recipients disappeared from the Hospital to return only at the end of September, and in consequence we have received but a relatively small number of replies. This was of course only to be expected, and if the launching of our scheme was timed for the worst week in the whole year, rest assured it was done so because it had to be. No earlier date was possible and none later wise. This scheme is ripe but it will stay ripe until the next term starts.

Meanwhile we are receiving constant enquiries as to the results of the questionnaire to date, and while we would draw no premature conclusions we will give a few of the results which have been obtained so far—it being always remembered that these are in the nature of a "straw vote" showing, perhaps inaccurately, which way the wind is blowing.

Firstly 95 per cent. of the answers show dissatisfaction with the present student representation upon the various committees representing student activities; secondly 98.5 per cent. of those who reply would like to see a Students' Council formed. With regard to the existing expenditure of the Clubs' Union funds about 90 per cent. of the answers indicate dissatisfaction. We have not had time to make a full analysis of the "suggested allocations," but we can say that to date students have indicated that they would like 30 per cent. of the Clubs' Union funds spent upon the Club, as contrasted with the present 15 per cent. (This figure of 30 per cent. was arrived at by taking the arithmetic mean of the suggested percentages which vary from 15 per cent. to 50 per cent.). Lastly comes the thorny question as to whether the student would be prepared to contribute to the cost of the proposed new College. We are pleased to say that 86 per cent. of the replies indicate that they would be prepared to covenant to give £5 for this purpose. This is highly encouraging.

We will not continue to insist upon the importance of the questionnaire and the conclusions which will be drawn from it. That importance, we believe, is fully appreciated. We shall continue to receive a certain number of replies during the summer months, and when in October the students have returned we shall return to the subject and believe by the end of that month we shall have a 100 per cent. reply.

▭

ONE day this week we unlocked a dusty cupboard in our office, selected at random one of the red bound volumes with which it was filled, turned the pages and found ourselves in the atmosphere of Guy's Hospital of August 1908. These yellowing pages of a thirty-year old volume of the *Gazette* seemed to us to be illuminated

with soft gas-light, and as we slowly turned its blackened corners we travelled at the stately pace of the hansom cab, having time to appreciate our surroundings without haste or undue flurry. We found there much to interest us. Before us was a cartoon depicting a young man in a long waisted, many buttoned jacket, drain pipe trousers fitting snugly over heavy boots, a cane in his hand, a beribboned wide brimmed boater on his head. He escorted a lady with an incredibly slender waist, a bustle, apparently no feet, a galleon in full feathered sail perched over smiling eyes and holding a lace parasol in a dainty gloved hand. With the rustle of silk in our ears we turned a page to find that members of our present honorary staff had just been appointed ward clerks or dressers and that others had passed this or that examination, some with honours demarked by a flourishing asterisk. We read an account of the travels of the Roving Guy's Man, Mr. C. L. Leipoldt and through him discussed with Professor Trendelenburg his new operation for pulmonary embolism which had recently been performed for the first time on the human subject at the Berlin Clinic. Here, we read, it is stated that " every practitioner ought to be as familiar with cardiotomy and cardiorrhaphy as he is with tracheotomy or kelotomy." We rubbed shoulders with Professors Bier, demonstrating the properties of passive congestion, and his assistant Klapp of suction fame. On other pages we learnt that indignation had been aroused at the proposal that women should be allowed to sit for the Conjoint Board examinations, Professor Neisser tells the British Medical Association Meeting that he has now taken to excising the primary sore in syphylis, scorn is poured on the heads of diehards who will not concede the benefits of vaccine therapy.

We pored over the most candid advertisements for ladies' corsets, and were duly amazed that the most fantastically frilly ones sold at a few shillings only, and ideal for nurses at that. It was clear from the illustrations that the design of the surgical truss has altered little, whilst that of the nurses' uniform was changed almost beyond recognition. The chief discussion in Passim ran on the new-fangled motor car, for some could see definite possibilities in this means of transport for the busier general practitioner. Correspondents had written to the Editor asking him if he could procure information from owners of this modern vehicle as to its reliability and general usefulness to the doctor. The information offered showed that there were mixed feelings amongst car owners; some said that they would never again be without this latest example of man's creative genius, for was not the morning round a much speedier and less exhausting affair than of old, and could not one penetrate far greater distances. Others were more lukewarm in their praise and suggested that just as much time was spent in irritating repairs and unforeseen stoppages as was ever saved with an automobile. Some, with good reason, were concerned lest the doctor in dispensing with his carriage and horses would lose dignity in the practice of his profession. No contributor cared to damn the motor car with anything more than faint praise, and we suspected that any doctor who had been hotheaded enough to rush in and buy one, only to be sadly disappointed, would not find the coarse laughter of his friends music in his ears.

One man gave grave warnings of the absolute folly of buying a secondhand car and beseeched wouldbe purchasers of new models to turn a deaf ear to the glib salesman's talk of high power and speed for, he said, it was just this four-cylinder car that went wrong, whereas the more sedate two-cylinder without the gadgets such as ignition control and variable mixture devices, would be found much more trustworthy. There we left them wrangling amongst themselves, for our noses could detect the first fumes of petrol rising in a cloud to blot out the gentler horse traffic of St. Thomas's Street, to harden the gas-light glow into searching electric beams, and transform the broad back of our cab horse into a smooth shining expanse of bonnet.

Chronic Deafness

By W. H. Bradbeer, Esq., M.S.

THE recent advances of science and civilisation have increased the importance of our sense of hearing. The development of broadcasting and talking pictures are examples of the modern demands made on our hearing capacity. The voice of the B.B.C. penetrates to the Scotch shepherd in his lonely cottage, and to the Arab in his desert tent, and the accent of Garbo is familiar in every country town. The deaf person to-day suffers a much greater handicap, socially and economically, than he did a few decades ago.

Before discussing the treatment of chronic

deafness I should like to remind you very briefly of the anatomy of the organ of hearing, and to point out the ways in which deafness may arise. The middle-ear cavity may be regarded as a diverticulum of the nasopharynx, the Eustachian tube forming the stalk of the diverticulum.

The outer wall of the cavity is formed chiefly by the tympanic membrane, and the inner wall is formed largely by the cochlear portion of the temporal bone. The cochlea contains the special sensory nerve endings of the auditory nerve in the organ of Corti, which lies suspended in a fluid medium. The tympanic membrane is thrown into vibration by sound, and its movements are transmitted to the cochlea by the three auditory ossicles; the malleus, which is attached to the tympanic membrane; the incus, which acts as a link between the malleus and the remaining ossicle, the stapes. The stapes fits like a plunger into the oval window on the inner wall of the middle ear, and its movements result in agitation of the fluid contents of the inner ear with stimulation of the nerve endings of the organ of Corti.

We have not space to discuss the interesting and controversial subject of theories of hearing, but I should like to mention the very brilliant research carried out by the two Americans, Wever and Bray. These workers studied the electrical changes in the auditory nerve of an anæsthetised cat during stimulation by sound. They found that if the resulting action currents were amplified and carried to a loud-speaker in another room, an observer listening to the loud-speaker could clearly hear words spoken into the cat's ear. This work has opened up a tremendous field for the investigation of the physiology of hearing. The effect of artificial damage to the ear can be studied in the response from the auditory nerve.

Considering now the causes of chronic deafness, we can first mention the obvious causes such as wax and tumours of the external auditory meatus.

The next group comprises the very wide one in which deafness arises as a result of affections of the Eustachian tube and structures of the middle ear. The middle ear shows very great powers of recovery from acute infections, and it is unusual for there to be any serious defect of hearing after a single attack of otitis media or an acute mastoiditis. On the other hand, the ear reacts very unfavourably to the effects of a chronic non-suppurative inflammation. Infective conditions in the nose and throat result in an exudative reaction in the mucous membrane of the Eustachian tube and middle ear, followed later by fibrous tissue formation resulting in tubal obstruction and adhesions in the middle ear with limitation of movement of the membrane and ossicles.

Treatment of this type of deafness must first be directed to the exciting cause. The sinuses, teeth, nasal septum and tonsils should be surveyed, and, if necessary, appropriate treatment instituted. Unfortunately many patients do not realise that they are losing their hearing until deafness is marked. By this time, changes of a permanent nature have occurred, and even if the exciting cause is removed, recovery of hearing cannot be expected.

Many patients with this type of hearing defect receive great relief and considerable improvement by regular inflation of the Eustachian tube with a catheter. This helps to keep the tube patent and maintain the motility of the membrane and ossicles. All hospital ear clinics have a large following of patients who attend to be "blown up."

This middle-ear deafness gives rise to certain characteristic alterations in the hearing tests, the important ones being that a tuning-fork is heard better by bone than by air conduction, the lower-pitched forks are not heard by air conduction, and there is an apparent lengthening in hearing by bone conduction.

There is another common form of deafness which gives very similar results to the hearing tests and yet examination of the ears shows normal membranes and the tubes are quite patent, sometimes abnormally so. This is the condition called otosclerosis. It is commoner in women than men, and is adversely affected by pregnancy. The disease produces changes in the bony capsule of the inner ear, particularly in the region of the oval window into which the stapes fits. The deafness is due to limitation of the movement of the stapes which may eventually become firmly ankylosed in its window. The causation of otosclerosis is unknown, and it remains one of the unsolved problems of medicine. Treatment of the disease is equally unsatisfactory.

The last group of hearing defects are those which result from damage to the cochlear nerve endings or to the fibres of the auditory nerve. This type of deafness is known as nerve deafness. It is common in old age, and it also occurs in vascular disease. It may follow any acute illness and sometimes occurs in the infectious fevers of childhood, notably mumps. A sudden bi-lateral nerve deafness is almost always due to syphilis. Nerve deafness also occurs in persons who have been exposed to heavy gun-fire or loud explosions.

It is rarely possible to effect any improvement in a case of nerve deafness, but if it occurs in a young or middle-aged person, a diligent search should be made for a septic focus.

Hysterical deafness and malingering are sometimes met with.

The question arises: What can be done to help those patients whose deafness fails to respond to treatment, and is of such a degree to seriously handicap them? These patients can be helped in two ways—firstly by lip-reading, and secondly some form of hearing aid may be advised.

Lip-reading is a most useful accomplishment for the deaf person, and even if a hearing aid is prescribed as well, more benefit will be obtained from it by a patient who is able to lip-read than by one who is unable to.

Children learn to lip-read very readily, and it is always wise to advise that children with a severe and incurable deafness should be taught lip-reading.

The subject of hearing aids is one which has been neglected in the past by the medical profession as a whole and the otologist in particular. The reason for this neglect is that until recently, hearing aids, particularly the electrical types, have been unsatisfactory. Consequently the deaf person has been exploited by unscrupulous firms who, by means of exaggerated advertising and smart salesmanship, have sold inferior instruments at high prices.

The outlook to-day is better, and there are excellent firms who take a genuine interest in patients who are referred to them. There are many things to be taken into account in prescribing a hearing aid, and naturally the most important consideration is the nature and extent of the patient's hearing loss. This can now be done by means of an instrument called the "audiometer," with a degree of accuracy comparable to the ophthalmologist's refraction tests. Unfortunately, it is not yet possible to compensate a patient's hearing loss as accurately as the ophthalmologist is able to correct his patient's refraction error. However, the audiometer test is of help in choosing a hearing aid. The audiometer is an instrument for producing pure tones of known frequencies and measured intensity. The most commonly used unit of measurement is the decibel. It is a logarithmic measurement so that ten decibels equals an increase in intensity of one hundred times and twenty decibels a thousand times, and so on. Normal speech is carried on at fifty to sixty decibels above the threshold of audibility.

The non-electric aids consist of horns, auricles and speaking-tubes. These aids are simple, everlasting, and their amplification is free from distortion and background noises. They are very useful for elderly persons suffering from nerve deafness.

The simpler form of electrical aid consists of a carbon microphone and a similar ear-piece operated by a dry battery. These aids have the advantage of lightness and portability, but they have many serious disadvantages.

They have a high degree of background noise, the amplification is not very great and the response is uneven over the speech frequency range. This type of aid is sometimes suitable for a patient with middle-ear deafness who can also lip-read to some extent. It is particularly useless for a case of nerve deafness.

The valve-operated aid makes use of an amplification circuit operated by valves similar to wireless valves. These aids have relatively little background noise, they have an amplification of forty to sixty decibels, and even response over the speech frequency range.

These aids give excellent results in patients with middle-ear deafness. The fact that persons with a middle-ear deafness hear a tuning-fork well by bone conduction encourages the idea that a bone conduction aid would give good results. Actually, the technical difficulties of producing a bone-conduction ear-piece are very great, and the ordinary ear-piece usually gives better results.

A large proportion of deaf persons are able to hear with a suitable hearing aid. There is no evidence to show that hearing aids ever lead to loss of hearing or other harmful effects. The valve-operated aid usually gives the best results, but unfortunately it is rather expensive to purchase and to maintain. Of 132 severely deaf patients, 83 could hear satisfactorily with a valve-operated aid, 17 with a micro-telephone aid, 11 with a speaking tube, and in 21 cases no aid was of help.

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American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Friday, October 1st

WHEN I rang Dean Lewis last night I was delighted to hear him say he would call for me at a quarter past nine. I remarked it was a " let off " after the strenuous time I had had, and he replied I must remember this is the South. I was astonished to hear that Baltimore was South, but South it is. You see it in the gentle friendly atmosphere against the rather high-hat academism of Boston and hustle of New York, but especially in the segregation of the blacks. In the hospital they have their own wards and lavatories. There are large black districts in the city, where you see characters straight out of the music-hall stage or comic papers, who seem to be the friendly humorous creatures of slave days. All porters, all bootblacks, all waiters and most domestic servants are negroes.

Dean Lewis arrived at the hotel, but it was some time before we recognised each other. I do not know what he expected, but I was looking for a lean go-getter of the Cutler type. Instead he is tall, heavy, with a direct stare under lowered brows that is always half-humorous. He varies between intense seriousness and humour, and possibly finds his position as an outsider planted as high priest in the temple of Halsted quite a joke. He bundled me into a fine Cadillac with negro chauffeur, and so on to Johns Hopkins. I will not enlarge on this place—all red brick, and nothing very particular about the buildings or theatres, except at the entrance hall a large marble statue of Jesus holding out his hands and saying, " Come unto me all ye that are weary and heavy laden, and I will give you rest." Apparently this is a great worry to negroes on their first visit; they say they want to be cured, and they do not want to go to heaven just yet.

A line of operating theatres in use. In the first was Dandy, whom I looked into from time to time. He gives at first the impression of being sarcastic, but is not really so. Is worshipped by the others, who say his results are marvellous. He works beautifully, but has debunked the Cushing nine-hour sitting; seldom takes more than two hours, and does it, they all say, as well as the best.

Young.—1. Perineal prostatectomy. Incision inverted U, well forward from tuber ischii parallel to ischio-pubic rami. After turning down skin and superficial fascia, he blunt dissects each side of mid-point and behind transverse perinei, to define central tendon. This he cuts. Deep to this he defines recto-urethralis muscle running about same way, by blunt dissection with knife handle (he has sound in urethra to identify). Taking this muscle in dissecting forceps, he cuts on rectal side of forceps, to avoid any risk of damaging urethral sphincter. (Fig. 31.) Several

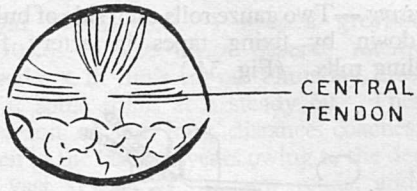

Fig. 31.

layers of muscles cut before apex of prostate exposed. Then he makes a one-inch cut into apex of prostate, not urethra, and inserts his own prostatic retractor. (Fig. 32.) Pulling on this

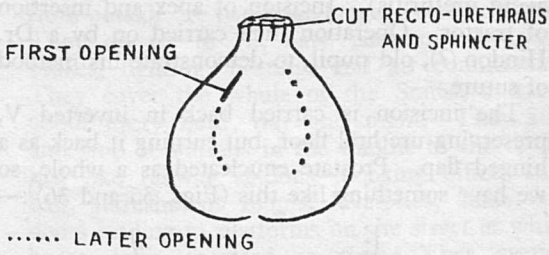

Fig. 32.

he cuts transversely into fascia of Denonvilliers, and clears back with knife handle till prostate is well exposed. He does not identify rectum, but keeps well away from it. Gets retractors on to levator ani. He then extends right incision down through capsule to adenoma for greater part of prostate length, and makes a second incision to left, also down to adenoma. Between these lies a long tongue containing the ejaculatory ducts, the floor of the urethra, and the verumontanum.

He enucleated right and middle lobe through first incision, left through second, using handle of knife, finger, spoon and scissors as required. Neither side comes away well. Explains this is an ill man, with sepsis and prolonged catheterisation; therefore he will drain. Puts in a Davis bag (a pneumatic bag by a former assistant, some-

thing like this closed). (Fig. 33.) One catgut stitch

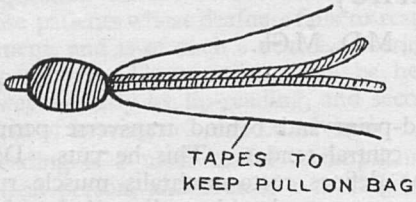

Fig. 33.

transversely through muscle side to side, interrupted silk to skin. (Number of deep stitches seems to vary according to need (sepsis or bleeding) for drainage.)

Dressing.—Two gauze rolls each side of bulb, bag kept down by fixing tapes in artery forceps straddling rolls. (Fig. 34.)

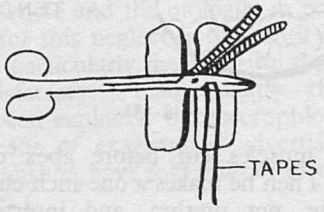

Fig. 34.

2. Started by cystoscopy (not done before to avoid urethritis). Incision of apex and insertion of tractor. Operation then carried on by a Dr. Hindon (?), old pupil, to demonstrate his method of suture.

The incision is carried back in inverted V, preserving urethral floor, but turning it back as a hinged flap. Prostate enucleated as a whole, so we have something like this (Figs. 35 and 36) :—

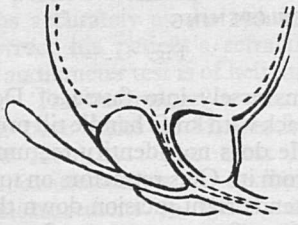

Fig. 35.

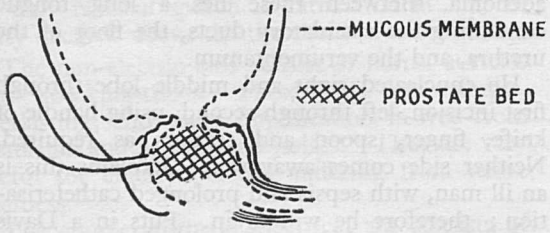

Fig. 36.

He then closes by sewing with needles like my "5" and chromic catgut, first anterior bladder mucous membrane to side part of prostate bed, then sews V back in position. Ties catheter in urethra. When I left it was still bleeding freely.

Young cleans perineal wound before closing with mercurochrome. (According to a registrar, they do have incontinence and recto-urethral fistulæ, but very rarely. For the latter some colleague brings collar of rectum downwards.)

Reinhoff was doing a goitre. I only saw bits. He does not split muscles. His second case, carcinoma of stomach, proved inoperable.

Orthopædic man.—Exploring a knee. I was worried by the colour of the skin, like weak Indian ink, and thought it was prepared with silver nitrate. Only spotted halfway through the operation that the patient was a negro.

Cyst of external cartilage. Seemed too obvious for words, but they were doubtful about the diagnosis (possibly a registrar). Work was very slow, a wide exposure with scissors, turning capsule off subcapsular fat and cutting all the ilio-tibial band across. Careful but not no-touch technique. Naturally gets a very good view and removes cartilage easily.

Incision. (Fig. 37.)

Fig. 37.

R. gave me lunch in common room where I met a very cheery crowd whose names I forget. After lunch Dean Lewis took me round surgical department, and up to Geschikter. Geschikter is the boy at Johns Hopkins : they eat him. He is dark with a marked facial tic, at first suggesting left facial paralysis ; very keen, very certain. I wish I could remember much of his talk, but it was mostly about the experimental production of chronic mastitis and cysts in mice, by oestrin. General conclusions that chronic mastitis never gives rise to carcinoma.

After this Dean Lewis got his car again, and took me for a drive round Baltimore, through a new park, and out to a country club golf course, one of the most beautiful park courses you could imagine. We had two Southern drinks—Mint Julep, and "old fashioned cocktail." Baltimore

is a most friendly town, and must be delightful to live in. Taxis are incredibly cheap (I should guess about 4d. a mile), there are beautiful park suburbs everywhere, and you can get a good cook, coloured, for 1 dollar a week.

Coming back to the Emerson, I found an invitation from B—, (Jim's friend). Put on dinner jacket, and drove out, to find lovely wooden house in well planned woodland garden suburb. Dinner at 7. Host about 40, bald, earnest, a solicitor, wife about 35, small, dark, serious, but trying to hide it. 10th wedding anniversary, apparently a " tin " occasion, and guests bring tin opener, tin of tomatoes, tin egg slice, and so on. Three other married couples, and a young divorcée and Brennan's sister to pair off Jim and me. Cocktails ad lib, chatter chatter, no sign of dinner. About 8.15 we all go into next room, where there is food on table, heap it on to plates, bring it back to first room, and eat it on sofa, stools, anything. Whisky seems the only common drink in America, but you must specify " Scotch," " Irish," " Rye " or " Bourbon." Afterwards a very hilarious evening, entirely due to Jim, who kept the whole thing going at top till 1 a.m. A delightful boy, and I wish him luck.

October 2nd, Saturday.

Lewis called again and took me to Johns Hopkins. I found Finney doing a very difficult gall bladder, thick and œdematous, with a liver that would not mobilise. Not a case for a visitor, but a dear little man and a great surgeon.

Dean Lewis did two cases :

(1) Carcinoma of the breast, previously irradiated. After dissecting the axilla, he continues to dissect downwards to the end, finishing at the outer side. Looks good. Sews skin with waxed silk.

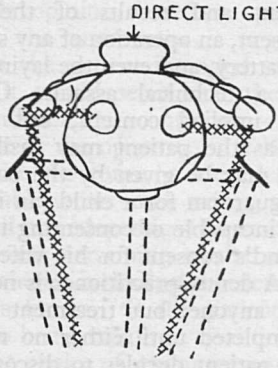

Fig. 38.

(2) A young man with regional ileitis. He resected several feet of ileum and part of cæcum, using cautery to cut bowel.

Points.—D.L. has a sterile mitten for holding cautery, thrown down after use : good idea.

Prontosil is being used for chronic infections, and for gonorrhœa, they say with great success.

Kocher anticipated modern iodine treatment. Put in *R.A.*, *B.M.J.* or *Lancet*, 1907. Theatre lamp used here is a multiple lens beam. Same idea as scialitique, probably older. (Fig. 38.)

October 3rd, Sunday.

Did Washington. I took a greyhound bus at 10.15. These buses deserve mention. We passed one in Jim's car on Thursday, after following it some miles at a steady 60. They are an extension of our long distance coaches, having arisen in the last two years owing to the depression, the vast system of the new roads, and the inefficiency and rudeness (they say) of the railways till they had to face competition. They are all steel coaches 25 to 30 ft. long. The floor is a good 3 ft. up, with a narrow footway 1 foot lower down the middle. On each side are double seats, tilting to any angle, seating 36 in all. Above are ample luggage racks. Below the seats reached from outside are two huge luggage compartments. They do up to 70, have enormous hydraulic brakes, lighting, heating, and air conditioning. They cover the whole of the States, and run about every hour, day and night. They start and stop at stations in the middle of the towns, just like railway stations—booking office, large hall, refreshment rooms, lavatories, stalls, and doors leading to platforms on the street at which buses draw up dead on time. They average as good as the trains and are much cheaper. Still I shall stick to trains : I should hate to sleep in a bus.

Next to me on the journey was an old negro, reading carefully an annotated bible.

At Washington I took a sight-seeing tour. Town buildings, White House, Arlington cemetery and tomb of unknown soldier, Robert E. Lee's house, Washington's house at Mount Vernon. No time to describe them. It rained all day, and the drive along the Potomac river, which should have been lovely, was spoiled. I liked the marble remembrance hall best. Robert E. Lee and George Washington do not thrill us, and a Georgian house is not much of an antique. Still, here it is holy ground.

(*To be continued*)

Legal Matters

A Paper read before the Dental Society on 3rd February, 1938, by R. G. Bird, Esq.

MR. PRESIDENT and GENTLEMEN,—There is no law made specifically for dental practice except the law relating to the keeping of a Dental Register, and arising out of the latter, the standard of conduct set by the body who keeps the Dental Register—the Dental Board. Every practitioner therefore has to face the application of the common law to his conduct and to his dealings with his patients, the primary object of the law being the protection of the interests of the community, in which community are included both patients and dentists. Therefore, to give a comprehensive account of dental jurisprudence, one would have to know every law on the Statute Book, and then to try, by every artifice possible, to apply that law, ever so remotely, to dental practice. This, you will be sorry to hear, I have not done and will not do; in this paper I want to give you some account of general principles of the law, as would most commonly be applied to dental practice, and to show you how important it is that the dentist should have some idea of the extent to which he may, however skilful he may be, infringe the law, or, on the other hand, to what extent he may expect the help of the law in his practice.

Let us start then with an account of the legal view of the dental practitioner. By an Act of 1878, a Dental Register was set up, and by the Dental Act of 1921 it is illegal for anyone to practise dentistry unless he is a registered dental or medical practitioner; incidentally, a registered chemist may, in an emergency, remove a tooth if he uses no anæsthetic. Certain persons who had practised prior to 1921 were admitted, but subsequently only those who have obtained a recognised degree or diploma are admitted. This nominally protects the public from unskilled persons, but presumably unskilled and careless persons can still pass their Finals, and become registered, or a skilled person may lapse into an unskilled person in his comparative dotage. Therefore a dental practitioner is bound to use a reasonable care and skill at all times towards his patients, paying or non-paying. This reasonable standard does not admit of any exact definition, but some attempt can be made to express it in general terms. Thus: "Every person who enters into a learned profession undertakes to bring to the exercise of it a reasonable degree of care and skill. He does not undertake, if he is an attorney, that at all events you shall gain your case, nor does a surgeon undertake that he will perform a cure, nor does he undertake to use the highest possible degree of skill. There may be persons who have higher education and greater advantages than he has, but he undertakes to bring a fair, reasonable and competent degree of skill." The decision as to whether this reasonable degree was attained rests with the Court, but the Court takes into account the fitness of the practitioner (*e.g.*, a dentist who removes an appendix cannot, *ipso facto*, use reasonable skill), the state of dental thought at the time, as expressed by the opinion of an expert witness, the locality and scale of fees, and the eminence of the practitioner, or, in short, the probable action of the average practitioner if placed in similar circumstances. For example, then, a mistake or accident is not of itself actionable, nor is a wrong diagnosis and ineffective treatment, but only if the Court decides that reasonable care and skill was not used. Or again, a dentist who did half-crown extractions in a poor neighbourhood would probably not be expected to use a new needle for every injection, nor to use X-rays except in exceptional circumstances, but the more expensive the fees and the more eminent the practitioner, the more do these two things become necessary. The Law also requires extra precautions where extra precautions would seem to be indicated; for example, if a patient discloses any history of hæmorrhage or shows signs of some constitutional disease, co-operation between doctor and dentist is most necessary even to the extent of a blood-count in possible leukæmia, and after-care of the patient essential. It is important to obtain the consent of the patient to any operation, and the consent includes the patient's knowledge of the exact nature, extent and results of the treatment. Without consent, an operation of any sort becomes a technical battery, and even the laying out of the instruments a technical assault. Courts have accepted an implied consent, but this is not satisfactory, as the patient may easily repudiate it. Consent may be given by the patient, or by a parent or guardian for a child (an infant under 16 is legally incapable of consenting to anything), but a husband's consent for his wife is not now necessary. A dental practitioner is not bound by law to treat anyone, but treatment once begun must be completed until either no more can be done or the patient decides to discontinue it, or the dentist may refuse further treatment for a

good reason, but in that case he must take steps to prevent his withdrawal having ill consequences, *e.g.*, by leaving arsenic in a tooth. If the dentist decides upon a new form of treatment, the patient must be told the intention, reason and risk, if any, and the Court would want to know the reason for using a new treatment.

Of actions brought against the dentist, the most common is that for malpractice, where the patient sues for damages or brings a counter-claim for non-payment of fees, on the grounds of the practitioner's alleged lack of care and skill. The few points given above will serve to give some idea of the Court's view on the merits or demerits of the case, but the Court depends for a large part on the opinion of an expert witness. Here are a few examples of possible malpractice: failure to X-ray in cases of possible fracture, failure to pack throat for gas extraction, failure to take X-ray for extraction of *misplaced* teeth, the faulty mounting of X-rays upside down or inside out, accidental inhalation of root canal reamer, failure to appreciate an idiosyncrasy to local anæsthetic, and mixing up of cards or charts. In cases of accidental injury to soft tissues by stones, hot instruments, etc., the patient would often seem to complain of severe shock, and claim the expenses of a long sea voyage (very nice, too!), these cases being very difficult to defend. As a general rule, only the patient can sue, with these exceptions: first, that a parent may sue for a child, a husband for wife, or an employer for servant if the former can show actual monetary loss, and secondly, in the event of a death, the next-of-kin may sue within one year for loss of expectation of life, or the executors may within six months claim for the estate the damages to which the patient would have been entitled had he lived. There also arises the question of whom the patient can sue: the dentist, anæsthetist, assistant, or locum. On this point, I have been unable to find any record of definite Court decisions, and must venture my own humble opinion, based on papers on this subject. If the anæsthetist is engaged by the patient, and the patient intended to pay his fee separately, it would seem that the anæsthetist, being an independent contractor, is responsible for his share of the operation. If he is called in by the dentist, the common idea that the dentist is wholly liable seems to be wrong, and the anæsthetist is still an independent contractor, responsible for matters pertaining to the administration of the anæsthetic, including the determination of the patient's fitness. If the patient consents in actual fact to being seen by a qualified assistant or locum, in the choice of whom reasonable care and skill has been exercised, the dentist is *not* responsible for isolated acts of negligence by them, if not under his direct supervision. There is another point as well, namely, that the patient may have been negligent also. The Court will ask who had the last opportunity of avoiding the accident; if the patient, he alone is liable; if the dentist, he is liable, or if both at apparently the same time, the dentist may, in certain circumstances, be assessed for his share of the damage. Two examples of this contributory negligence may be cited: the patient fails to return as directed, or fails to use mouthwash, etc., as directed. The position of a dentist is comparable with that of the owner of a "pub." as regards his premises. He must take reasonable precautions to prevent his patients from coming into contact with a potential source of injury, including thereby defects in the premises. Thus if a patient fell on his ice-bound front doorstep, the dentist would be liable for damages for injury.

Let us now pass to the more cheerful side where the dentist can invole the law to his aid. He has the right afforded him to sue at law for his fees, which is not on the whole a thing to be encouraged, as it frightens patients and is expensive. The Court may award reasonable fees, depending upon the amount and nature of the work done, the appliances supplied, the eminence of the practitioner, and the distance he had to travel, if any. The patient may plead either malpractice, already dealt with, or breach of warranty. The Courts have a tendency to regard a promise to make dentures which will fit and be comfortable in a reasonable number of attempts to be a definite contract, but, generally speaking, they do not so regard promises, for instance, to cure an abscess and save the tooth, on the grounds that, briefly, it is a promise of something that the patient knows it is impossible to promise. Patients may refuse to pay an X-ray fee on the grounds that they have not received the films. The general opinion seems to be that the patient pays for an opinion by the radiologist and not for the films. Thus the radiologist is entitled to keep the X-ray, and the patient would find it impossible to compel him to send even his report to another dentist on another occasion. The patient is expected to use reasonable care in the surgery; thus the dentist could claim for damage done to his apparatus by a patient who was drunk or unnecessarily clumsy, but not for damage when a patient is recovering from an anæsthetic. The essence of libel and slander is defamation, and refers to the written and spoken word respectively before a third person. Any written word which is defamatory, thereby having an effect on the dentist's or patient's reputation, is a libel if seen or able to be

seen by a third person, but with slander the scope is more limited. The damage done must be capable of financial expression, except if the defamation imputes a criminal offence, leprosy, plague or venereal disease, or the unchastity of a woman, or amounts to an injury in a professional reputation among potential patients. Cases concerned in dental practice are rather rare, but are met with in speech and writing of patients concerning their dentists, or in reports by a dentist on a patient to a third person, over which reports the greatest possible care should be exercised, or in the defamation of another dentist in front of a patient.

Perhaps now an outline of the resolutions of the Dental Board might be worth while considering : the Dental Board does not issue any code of rules, so that the position rather seems to be that one does not know what is wrong until one has done it, and then one finds out only too well. The following, however, are undoubted examples of infamous conduct in a professional respect : criminal acts, including abortion, criminal negligence, false certification, and offences against the Dangerous Drugs Acts, drunkenness, adultery, advertising, the employing of unqualified assistants or associating professionally with unqualified persons, and publishing circulars or pamphlets damaging to the profession of dentistry. The Board is especially severe with improper associations between practitioners and female patients or wives of male patients, and it is to be noted that the improper associations may be of a comparatively very mild nature, and the professional association may be of a very remote nature. I should like to deal with advertising at some length ; advertising is of three kinds—canvassing, press notices, and circulars, and the abuse of plates, etc. Unless patients themselves request treatment in the first instance, a construction of canvassing either by the practitioner or by his agent may be made. Publication of announcements to inform patients of change of address, of days of attendance, press notices, publication of name in prize-lists, etc., display of name at places of public entertainment are all regarded as forms of advertisement if the notice includes the word " dentist " or any other words or letters implying the same thing. Notification of patients of times of attendance by an announcement is only permissible if there is no resident dentist for an emergency. Circulars of notification of change of address, hours, telephone number, or partnership must be sent only to *bona fide* patients in a sealed envelope. Further, the Board views with disapproval the use or exhibition of any sign other than a sign which in its character, position, size and wording is merely such as may reasonably be required to indicate to persons seeking the exact location and entrance to the premises at which the practice is carried on. Thus large letters, words such as " painless extraction," notices at other premises, neon signs, daylight signs and intermittent illuminated signs are all barred. What is admissible is as follows :—

For practice is shopping area.—One plate plus one hanging sign, or one plate plus name on not exceeding two windows plus one *plain* light.

Private area.—One plate plus illuminated name or number of house, if not too conspicuous.

Bright colours of the premises are frowned upon, as are names across converted shop windows. There is another point worth mentioning, namely, that of fee-splitting, which is, incidentally, a criminal offence. For example, if a dentist refers a patient to a doctor, and by a previous agreement the doctor pays the dentist part of his fee as commission, so that the latter gets not only his own legal fee, but the doctor's 10 per cent. as well, this example of professional misconduct and of a criminal act known as " fee-splitting " has taken place.

This brings the paper to its end, gentlemen, with a few general principles which should be followed on every occasion :—

1. Do join a medical protection society as soon as possible, and thereby avail oneself not only of legal defence, but of special medico-legal knowledge and advice which is invaluable after a mishap or before a certain course of action is taken.

2. After a mishap, however trivial, be sympathetic, but say or do nothing which in any way admits liability, and note down on the ptaient's chart what exactly has happened and whether the patient has been told. As a general rule, of course, much trouble is saved and much risk avoided by telling the patient, although we are all very tempted not to do so ! If a needle breaks and cannot be removed immediately, send the defective hub of the needle and other needles in the phial to the protection society at once for examination.

3. Never tell a patient who is proving awkward that you are backed by a protection society until they tell you to.

4. Always have a partnership agreement in writing, the other partners being responsible in law for the acts of one of them.

5. Promise nothing and explain everything.

6. And finally, tempt neither Providence nor the Dental Board.

Correspondence

Student Accommodation

To the Editor of the GAZETTE

SIR,—Many generations of Guy's men have grumbled at the housing conditions in the College, which surely demand a belated slum-clearance order. You and your predecessors have for years urged the authorities to improve matters. A site is now available, but the money is wanting!

Would it be possible to issue £50 debentures, and ask old Guy's men to take them up? They would probably rank after the loan, which will be raised, so I expect 5 per cent. would be necessary, but at that rate many old Guy's men would, I am sure, accept the security—if only for sentimental reasons. I am a child in money matters, but put this forward as a suggestion.

Yours, etc.,

F. W. MORTON PALMER.

Woodlands,
Totnes,
Devon.

"The Unexpected in Surgery"

To the Editor of the GAZETTE

SIR,—Mr. Eckhoff's paper in the last issue of the *Gazette* has stimulated me, an "old'un," to record a few experiences of a long life. When I was house-surgeon to Mr. Golding-Bird forty-three years ago, there lay in old Luke Ward a severe piles case. One of the dressers, under the surgeon's directions, cauterised the piles. Next day, twenty-four hours after the operation, the man, *æt.* 50 (*circa*), died. The post-mortem showed the foulest ulceration in the cauterised area.

A few years later I liberated the soft palate from the naso-pharynx, adherent because of old syphilitic ulceration. A naso-pharyngeal plug was applied to prevent re-adhesion. As the pain was very troublesome, half a grain of morphia (a tablet) was injected. Three and a half hours later he died of opium poisoning. I have been unable to find an account of death under one grain of morphia.

One more strange and painful experience was seeing four rodent ulcers (confirmed by other surgeons) on women's faces in a few weeks. A fifth case occurred also in an old man.

Yours, etc.,

VAUGHAN PENDRED.

Glebe Cottage,
Tilford,
Surrey.

A Non-Medical Man

To the Editor of the GAZETTE

SIR,—A fellow student remarked the other day that, in his opinion, "an integrated personality is the driving force behind the digestion juices."

Considering the amount of minor gastric troubles that one meets with in general practice, and their capacity to lead on to major difficulties, I thought the remark worth passing on.

Yours, etc.,

JOHN H. CHITTY.

Westcott House,
Cambridge.

Sport

Cricket

GUY'S v. MIDHURST

KNIGHT, who had pulled a muscle at Cranleigh, was still not fit for this game, but we had G. G. T. Fletcher and T. M. L. Price out for the first time this year. The glories of the beautiful Cowdray Park ground were rather lost on the secretary at first, as certain of his flock had failed to make the right train. But these troubles were solved by Midhurst putting us in and their arrival by lunch-time. O'Gorman and Thomas scored rapidly, keeping the fieldsmen on their toes with some very short running, and put on 76 runs in 40 minutes before O'Gorman was caught at cover for 49. Thomas was taken at the wicket two runs later for 26, and Morey and Birks played a difficult ten minutes in rather poor light until lunch, for Yeomans and Samms were now bowling excellently.

At 136 Morey was caught for 36, and Birks had done more than settle down, some strong pulls to the rails being particularly noteworthy blows. Dr. Foster soon got going in beautiful style and scored a rapid 45 out of the 80 added for the fourth wicket. Birks continued very effectively,

but Hughes appeared rather worn out by his journey. Price made two very attractive off-drives to the ring, but the effort of his next shot to cover provoked an explosive grunt, which was mistaken for a call for a sharp single. He was just a little way out when the wicket was broken.

Elder gave Birks most of the bowling as he raced towards his century. But the obvious imminence of a declaration made him go too fast, and after a couple of on-drives which he let fly in a manner worthy of the neighbouring toxophilites, he was bowled when two short of his hundred, and Morey declared at 285 for 8 wickets and 4.10 p.m.

The first few overs gave no indication of what was to come, and then Morey had Thelwell leg-before and bowled East in the next over. O'Gorman then came at the town end and had Samms well taken by Morey, and they proceeded to run through the side. Peras was magnificently stumped on the leg side by Thomas. O'Gorman took two more wickets in his next over, and tea was eventually taken at 28 for 8.

Midhurst were, though, very unlucky to bat after a long day in the field, and then to have the tea interval so unfortunately delayed for three-quarters of an hour. The ninth wicket fell to Morey at 33, and then Vaughan Lee adopted a "cunctator" policy of singles off the last ball of the over, and withstood all the blandishments of leg full-tosses, though falling from grace by hitting a perfectly good ball from O'Gorman on to the archery ground. But his patience was not Fabian, for at 46 Morey bowled him as he hit out, and Guy's had won by 239 runs.

They batted again and made 109 for 5 wickets off the other bowlers, mainly owing to 49 by Annell and 42 by Quas. The only noteworthy features were the eccentric incredulity of a wandering hound, and the fact that Hughes took a wicket with every ball he bowled.

Guy's.—285 for 8 wickets declared (G. O'Gorman, 49; Dr. H. D. Foster, 45; P. H. Birks, 98).

Midhurst.—44 (L. G. Morey, 7 for 15; G. O'Gorman, 3 for 19).

GUY'S v. THE RABBITS

AT Honor Oak Park, on Saturday, July 16th, despite the varying composition of the Hospital side, we went on to the field without having lost a match since that memorable game at Westcliff on June 4th. We were lucky to come off in that same happy state.

Despire the secretary's outside requisitions, the bowling was atrocious. Kinloch was not in Jersey form and McClintock had an off day. And, despite a three-year interval between his last over and his next, Willis was responsible for the first wicket, when he caught and bowled Taylor at 61. The hundred was up before Darbyshire came on to get Orford leg-before in his first over. And ten runs later he had Parkinson, who had been batting well for his 49. Although there were many "streaky" shots, particularly through McClintock's rather unsuccessful short legs, we had to wait till 196 for a further success. Gerrard was caught off a full-blooded hook and Kinloch by Darbyshire at short square, and at 206 for 4 wickets they duly declared, leaving us 2 hours 5 minutes.

An unnecessarily protracted tea interval reduced this time by ten minutes and rather spoilt Gerrard's sporting declaration. Hughes and Darbyshire started confidently, but at 33 the latter hooked one from Taylor on to his body, whence it fell via his pads on to the wicket, and in the next over Chase cut a ball into his wicket before scoring, and at the same total Willis was bowled neck-and-crop. Thomas and Higson soon left, both bowled, and the score was 52 for 5, with Hughes still defiant and productive of runs. Wooldridge improved matters with a hard-hit 20, and then Hughes found a good partner in Lauder, who helped him add 40 runs before he was himself bowled by Husk for an invaluable 55. The rapidly falling wickets had slowed us up badly, and it was now a question of playing out time as we were hopelessly behind the clock. At 118 and 6.40 Lauder was out for a good 17, and McClintock joined Kinloch to play out twenty minutes. This task proved easy, in fact they rather hit it out, scoring 45 runs, of which Kinloch claimed 26 not out and McClintock 20 not out. So the Hospital were 163 for 8, and the season was over except for our visit to the Old Mid-Whitgiftian cricket week on August 9th.

The Rabbits.—206 for 4 declared (Parkinson, 49; Gooding, 45 not out; Gerrard, 47).

Guy's.—163 for 8 Hughes, 55. (Twohy, 3 for 53; Taylor, 3 for 59).

Golf

THE Golf Team played their first match against Sandy Lodge Golf Club on Wednesday, July 20th, and were just beaten by $3\frac{1}{2}$ points to $2\frac{1}{2}$. The Penfold tournament had been held there a few weeks previously, and the course was playing in fine condition. J. C. Ritchie took advantage of this and went round in 72 strokes to beat his opponent by 9 and 8. The Sandy Lodge members entertained us throughout the evening, and we all had a thoroughly enjoyable time.

Results were as follows :—

Guy's G.S.		*Sandy Lodge G.C.*	
T. N. Praat	0	E. A. Sturt	1
J. C. Ritchie	1	J. N. Buffell	0
J. A. Marsh	½	F. A. Morris	½
J. G. M'Callin	0	P. A. Batley	1
W. G. Cross	0	G. R. Hodgson	1
J. A. Dossor	1	P. M'Crosky	0
Total	2½	Total	3½

Result.—Sandy Lodge, 3½ points; Guy's Hospital 2½

Hospital Information, etc.

Pass List

UNIVERSITY OF LONDON.
M.S. EXAMINATION.
July, 1938.
BRANCH I.
Surgery.
S. H. Wass.

UNIVERSITY OF LONDON.
B.SC. EXAMINATION, 1938.
Physiology.
R. C. Hallam.

CONJOINT BOARD.
July, 1938.
FINAL EXAMINATION.
Pathology.

J. F. Buckmaster
C. A. G. Cook
E. I. Davis
P. Forgacs
J. M. French
H. Greenburgh
W. E. Greenwood
W. R. L. Harrison
R. O. Holland
R. E. Horton
A. C. C. Hughes
D. A. H. Johnson
T. R. Jones
C. W. Kesson
A. H. Knight
O. G. Lane
H. A. Lee
J. Lynch
K. S. MacLean
N. L. McNeil
D. E. Meredith
C. M. Norman
R. F. Parfitt
T. M. L. Price
C. P. F. Quinnell
C. H. J. Rey
R. G. Robinson
W. A. de C. Shearman
D. Stafford-Clark
D. Tumrasvin
K. H. Walter
*J. Watson
E. H. Williams

Medicine.

M. R. Blair
J. F. Buckmaster
*J. Burton
*L. H. Cooper
P. Forgacs
J. B. Franklin
*H. Foster
*W. F. Frazer
H. Greenburgh
W. E. Greenwood
R. J. Healey
*J. P. Henry
*E. J. F. Hinde
*G. L. Humphreys
*A. H. Mayne
N. L. McNeil
*L. Nancekievill
J. R. E. Richardson
A. E. A. Shaw
*P. S. Silver
*H. Stott
*N. G. Straschun
H. J. Voss
K. H. Walter
*J. Watson
*P. Wilson

Surgery.

*D. A. G. Brown
J. Burton
R. F. E. Harrington
R. O. Holland
J. W. S. Harvey
H. Jackson
P. J. M. Kent
*D. R. Levinson
F. J. C. Matthews
G. J. Parfitt
*P. S. Silver
*R. W. Stevenson
*J. Watson

Midwifery.

E. B. Berry
H. H. Crabb
J. M. French
W. R. L. Harrison
E. R. Hodgson Todd
R. E. Horton
A. C. C. Hughes
H. Jackson
D. A. H. Johnson
O. G. Lane
H. A. Lee
J. Lynch
K. S. MacLean
D. E. Meredith
A. J. Patenall
E. M. Poulton
T. M. L. Price
C. P. F. Quinnell
*J. H. Rake
B. C. M. Reed
C. H. J. Rey
R. G. Robinson
W. A. de C. Shearman
L. E. Smith
D. Stafford-Clark
G. N. J. Thomas
D. Tumrasvin
T. G. Viljoen
G. S. Wigley
E. H. Williams

* Have completed the examination.

Papers by Guy's Men

Hankey, George T. Three unusual affections of the jaws: 1. Fibro-myxo-sarcoma of mandible; 2. Multilocular cyst arising from a maxillary dental cyst; 3. Xanthomatosis or lipoid granulomatosis of mandible (Schuller-Christian Syndrome). *Proc. Roy. Soc. Med.*, 1938, xxxi, 1137 (Sect. Odontol.).

—— Focal osteitis of the mandible, simulating osteogenic sarcoma. *Ibid.*, 1141 (Sect. Odontol.).

Ellis, R. W. B. Familial infantilism associated with epilepsy. *Ibid.*, 1127 (Sect. Study Dis. Childr.).

—— Rectal polyposis associated with clubbing, polydactyly, hydrocephalus, hepatomegaly, and hypochromic anæmis. *Ibid.*, 1048 (Clin. Sect.).

Simpson-Smith, A. Neuroblastoma of sacrum; case seen three and a half years after removal. *Ibid.*, 1047.

Plummer, N. S. Hypoparathyroidism. *Ibid.*, 1052.

Dowling, G. B., and Another. Acanthosis nigricans. *Ibid.*, 1147 (Sect. Dermatol.).

Morgan, O. Gayer. Bilateral enlargement of lacrimal gland. *Ibid.*, 1100 (Sect. Ophthalmol.).

Ogilvie, W. H. The approach to gastric surgery: I. Cancer of the stomach (illus.). *Lancet*, 1938, ii, 235.

Changes of Address

Dr. G. W. V. Parry, Camden House, Bletchingley, Surrey. 'Phone 14.

Appointments

N. L. M. Reader, M.S. (Lond.), F.R.C.S. (Eng.), Hon. Surgeon, The Nelson Hospital (for Wimbledon Merton and District), Kingston Road, Merton, S.W.20.

Births

BISHOP.—On 1st August, 1938, in Nuffield House, to Phyllis (née Thurston), wife of Dr. P. M. F. Bishop, Warden's House, Guy's Hospital—a son.

EDS. { H.B.O.C. / C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

WE are in the middle of August, the warm lazy days follow one another with only an occasional interlude for rain or thunder, the great wheels of the Hospital turn with their monotonously regular irregularity, and there is nothing to bestir the student from his slumbers in the Park. We say nothing—that is not quite true, for there have been a few matters of interest to the more active members of our small community. In the first place, as you lie back in your deckchair, you will see through half-closed eyes that less fortunate individuals are sweating in the hot sun, clambering about a steel scaffolding that is reaching toward the top of the Medical Block. You will probably know that this is the outward sign of internal industry in old Bright Ward as its gloomy interior is transformed into the new Children's Ward, and this will occasion you no surprise for you will have heard so often of this intended change. To us, who have been here for so short a time, it is difficult to appreciate this activity in its true worth, for we have realised the urgent need for better children's accommodation for a few years only, whereas to others who have spent a lifetime at Guy's this work must be a joyous surprise indeed. We trust that this most important department is, at last, to find itself in adequate surroundings and that the recent failure of the ceiling in Bright Ward is not a sign of deep portent, for Hunt's House must continue to stand if only to bear upon its shoulders the fulfilment of a long-cherished hope.

The falling of two hundredweight of plaster and laths only a few moments after the Superintendent had pointed out a blemish in its surface would certainly have caused our remote ancestors to have propitiated several of their gods, whilst the seer would have been either burned or worshipped for his oracular powers. To-day we congratulate the Superintendent upon his lucky escape from injury, and in due course the ceiling will be repaired and the whole incident forgotten.

▭

ANOTHER matter worthy of note is an incident, though not happening here, which must be of interest to all true Englishmen wherever they be gathered together, for it touches upon the very soul and spirit of this country and, indeed, a part, at least, of our Empire overseas. Last week, in a game between the Kent County Cricket Club and the visiting team of Australians, there was bowled by an English bowler a roll of bread in place of the more orthodox hard red ball. Now this is a really startling happening, for if it is not without precedent in first-class cricket it can have happened only a very few times before, and we are unable to find any record of a previous case. Even more startling than the incident itself is the lack of the storm of criticism that one was so confidently expecting from all right-thinking people. Had we known that this was likely to happen we would undoubtedly have travelled down to the Kent ground to see with our own eyes the effect on the spectators of this astounding piece of buffoonery, for the newspaper reports are at variance in reporting the incident and it is difficult to decide whether or no this bread ball was approved of. Several papers, of course, delighted in it, for here was proof on the one hand that the game was degenerate, and on the other that cricket was as full-blooded and virile as ever it had been. The more earnest papers forbore to mention it, deciding that such sacrilege had far better be suppressed lest this dread lust for hooliganism spread unchecked. And so the bolt of bread-line bowling came from a summer sky causing no tremor, and not even a spark in the dried grasses of our cricket fields. For our own part we are glad that this roll has been bowled,

for we were waiting in a jumpy nervous state for the next crisis in Europe and wondering, with ill-concealed anxiety, just how much we were to be involved when it eventually did happen; but now we are immune against all shocks and surprises and face the future armoured with the knowledge that, as of old, we stand firm and unshakeable against all blows.

▭

WE should like to congratulate the following on their recent appointments in the Dental Department :—

House Surgeons—
Conservation Room—
R. G. Bird.
T. K. Hopkins.
D. G. Sharp.
G. Sperryn Jones.
Children's Department—
R. D. Ogston (Senior).
R. O. Abbey (Junior).
Denture Room—
C. Sharland.

Assistant House Surgeons—
Conservation Room—
E. T. Cutler.
J. C. Coe.
D. J. Lyon.
A. G. Beaton.
Children's Department—
C. H. Blockley.

Vulvo-Vaginitis

By David Erskine, Esq., M.D. (Lond.), D.P.H.

VULVO-VAGINITIS is a disease which is liable to affect female children up to the age of puberty; it occurs most commonly among children of the poorer classes and is characterised by redness and irritation of the vulva and frequently by a purulent vaginal discharge. The gonococcal type of the disease, on account of its high infectivity, resistance to treatment and tendency to assume epidemic form, constitutes a grave administrative problem for institutions and public health authorities.

From the first few weeks of infancy until puberty is reached the vagina and vulva are covered by a layer of columnar epithelium, and this tissue is specially liable to become infected with certain organisms; during this period, also, the parts lack the protection of the acid vaginal secretions found in the adult. Soon after the age of ten, the changes of puberty commence; the epithelium of the vulva and vagina becomes stratified and the labia majora develop and further protect the parts from infection. It is as a result of these changes that the disease tends to be limited by puberty and cases do not pass on to become an adult infection.

CLASSIFICATION

It is very generally thought that the gonococcus is largely responsible for this disease; that this is not correct is shown by the observations on the child population in its care which have been carried out by the London County Council in the last two years. From many thousands of sick and healthy children, 627 cases of vulvo-vaginitis were found, of which only 32 proved to be gonococcal. Nabarro, at Great Ormond Street Hospital, reports 117 gonococcal cases in 955 cases of vulvo-vaginitis during the years 1930-36. But, nevertheless, the attendant ill-health and the horror with which the disease is regarded demand very careful isolation and treatment for all cases of vulvo-vaginitis.

A suitable classification firstly divides all cases of vulvo-vaginitis into :—

1. Gonococcal and—
2. Non-gonococcal groups.

The non-gonococcal group can then be further divided into :—

a. Bacteriological.
b. Traumatic.
c. Parasitic.
d. General.

The bacteriological group includes cases due to primary infection with streptococci, staphylococci, B. coli, C. diphtheriæ, pneumococci and the diphtheroid bacilli. Micrococcus catarrhalis, and very occasionally meningococci, are also found, and, on account of their likeness to the gonococcus, serve to emphasize the importance of confirming direct film diagnosis by full cultural methods.

The traumatic factors are foreign bodies (hairpins, marbles, safety pins, etc.); masturbation (which may be a primary or secondary cause); simple trauma, in which dirt and inadequate clothing are predisposing causes; criminal assault: this is often suspected from the clinical examination, but actually it is a comparatively rare occurrence.

Thread-worms, pediculi and scabies are the

chief parasitic causes. Trichomona infection has only very rarely been demonstrated.

The general causes include anæmia and debility, acute infections such as pneumonia, prodromal symptom of the exanthemata, glycosuria, and cases of spastic paraplegia, due to difficulty of maintaining cleanliness. Vulvo-vaginitis may also be a cause of retention of urine and of nocturnal enuresis.

MODE OF INFECTION

Gonococcal cases are seldom due to criminal assault or direct contact with an infected adult; they are most commonly caused by towels or lavatories which have been infected by parents, lodgers, etc., who may be suffering from gonorrhœa. The disease is also frequently spread by infected clothes, napkins, baths, sponges, thermometers, bedpans and swimming-baths. Unless care is exercised the infection can also be passed by the hands of an attendant. Many cases relapse on returning home after institutional treatment, and show the importance of a routine examination (and treatment if necessary) of all home contacts.

The absence of gonococci on bacteriological examination does not eliminate this organism from the list of causes in a particular case, and a case which does not rapidly respond to treatment for some other specific cause should be regarded with suspicion. The gonococcus quite frequently becomes crowded out with secondary organisms. Similarly, the diphtheroid bacilli are seldom the primary cause of infection.

SYMPTOMS AND SIGNS

The absence of symptoms is often surprising, but the child may complain of irritation or of pain on walking. On examination some degree of redness of the vulva will be seen with a slight to profuse vaginal discharge. In cases of some duration, there will be excoriation with œdema and scab-formation on the parts, and this may extend well on to the thighs. In gonococcal cases yellowish-green pus generally pours from the vagina on the slightest movement of the child and is almost diagnostic of this type of vulvo-vaginitis. Usually the urethra is also involved in the gonococcal type and there is often evidence of a secondary rectal contamination with the discharges. The more offensive discharges are associated with B. coli infections and foreign bodies, the appearance of a bloodstained discharge being highly suggestive of the latter.

DIAGNOSIS

The diagnosis of each individual case must, however, depend on a thorough clinical examination and bacteriological investigation. For this purpose the child should be held in the lithotomy position by an assistant and, after carefully cleaning the separated labia with a sterile swab, a probe dressed with sterile wool should be passed into the vagina. A smear is then made on a glass slide and a similar specimen is obtained for the inoculation of a culture tube. The process is repeated for the urethra and rectum.

Fessler and other workers have reported on the valuable assistance which may be obtained by use of the gonococcal complement-fixation test, but, in view of the wide variation in results obtained by different laboratories, it seems desirable that this test should be used with caution—especially in regard to negative results.

ISOLATION OF CASES

In dealing with children in institutions, the high infectivity makes it essential that early diagnosis and isolation of cases of vulvo-vaginitis should be possible. Much criticism has been directed against the routine examination and swabbing of all new admissions, and this method of control has now generally been discontinued. Quite apart from the immense amount of negative bacteriology necessary and the absence of security following one negative examination, it has been argued that the focussing of the child's attention on the genitalia is undesirable. Modern technique includes the careful observation of clothes and bedding for signs of secretions, casual observation during the bathing of children, and watchfulness by the attendants for evidence of irritation. Suspected cases can then be immediately isolated and submitted to careful clinical and bacteriological investigation.

The diagnosis of individual cases at home and school is left to the mothers and teachers, who should be taught to look for evidence of irritation and to take suspected cases for diagnosis.

TREATMENT

The treatment of gonococcal vulvo-vaginitis has, in the past, presented many difficulties owing to its refractory nature and extreme tendency to relapse. After all evidence of the disease has been absent for many weeks, it frequently reappears in full severity; this is not always due to incomplete treatment missing a small focus in the urethra, rectum or cervical regions, nor is it due, necessarily, to the child's return to an infective environment. These factors are, however, sometimes responsible.

All cases should be treated in hospital, and out-patient treatment is quite unsatisfactory. Each case must be nursed as a "barrier case," and a complete set of every necessity (from bedpan

to crockery and toys) must be set aside for each child and kept at the particular bedside. All dressings must be burnt immediately after use, and dirty bedding and clothes placed in disinfectant at once.

In view of the great infectivity of this disease, very special care must be taken by the nurse to avoid carrying infection away from the bed, and cases should always be completely isolated from non-infected cases. The general health should be built up by a balanced diet and tonics, and in children from very poor districts general artificial sunlight has been found to be of value.

Local treatment, which may be preceded by a hot alkaline sitz bath to remove excessive discharge, should be undertaken at least twice daily. Opinion differs as to the superiority of local douching or of swabbing. At Guy's, swabbing is favoured, and this is best undertaken by means of wooden applicators dressed with sterile wool. The vagina and urethra are separately treated with 5 per cent. mercurochrome in glycerine, 2 per cent. flavine in glycerine, or 5 per cent. protargol after cleansing the vulva with the same preparation. When necessary, the rectum can also be treated with similar applications.

Douching of the vagina can be performed with a small cannula or soft rubber catheter attached to a reservoir. Tinct. iodi mitis (1 dr. to the pint) or potassium permanganate (1 in 1,000) are the solutions most commonly employed. Insufflation of a dusting powder should follow any local treatment, as better results are obtained when the parts are left dry.

In recent years many observers have reported favourably on the use of œstrin, and this method of treatment held out great hope for the control of this difficult condition. By temporarily changing the infantile mucous membrane and vaginal secretions to the adult type, the gonococcus was, so to speak, hounded out. In the adult, gonorrhœa is still a disease of columnar mucous membrane, and so infection of the vulva and vagina does not occur. Similarly, cases of vulvo-vaginitis in children do not persist after puberty. Disappointment, when œstrin was employed, was often due to the fact that infections of the urethra and rectum were not cured at the same time as the vulvo-vaginitis *per se*—the former tissues, of course, undergoing no change at this artificial puberty. The necessary dose of œstrin is approximately 1,000 units daily by injection or 4,000 units daily by mouth. Treatment is continued for ten or twelve days after the first negative swab, which usually necessitates about thirty days' treatment in all. Local treatment to the urethra and rectum is also necessary when œstrin is used.

Brown, working in the Female V.D. Department at Guy's, has recently reported encouraging results with prontosil album and M. and B. 693. Relapses have been conspicuous by their absence, and, on the whole, it would appear that at last a most striking advance in the treatment of gonococcal vulvo-vaginitis has occurred. M. and B. 693 is still in the experimental stage, but the method of treatment with prontosil album is as follows :—

Under 4 *stone weight*.—1.5 grams daily in divided doses. Total course of 15 grams.

Over 4 *stone weight*.—2.0 grams daily in divided doses. Total course of 20 grams.

Sulphonamides of other manufacturers appear to have variable therapeutic values in the treatment of gonorrhœa. The substance is well tolerated by children. Local treatment appears to be unnecessary, but is, at present, recommended in association with the oral administration of the tablets.

The non-gonococcal cases will usually respond rapidly to local treatment in combination with correction of the causative factors. Persistent cases should be treated along the lines suggested for gonococcal cases, but over-treatment should be carefully avoided, as this in itself is liable to cause a vaginitis.

TESTS OF CURE

Hitherto, the resistance of gonococcal vulvo-vaginitis to treatment and its incredible ability to relapse have necessitated a prolonged period of observation and testing after the relief of symptoms. The decision of permitting a child to return to school or of discharging a case from hospital is one which should only be made after very careful consideration of adequate negative examinations. Repeated tests by films, cultures and complement fixation tests should be persistently negative for a period of from four to six months before the case can be considered to be cured.

In the absence of clinical signs of a relapse, bacteriological tests are made weekly, but, owing to the short duration of some relapses, a daily inspection of the vulva is essential during the first six weeks. The final tests should be made forty-eight hours after a provocative dose of vaccine.

Preliminary results have given a very low incidence of relapses following treatment with a reliable sulphonamide, but, for the present at any rate, equally strict testing is desirable after relief obtained with this drug.

Cases in which the gonococcus has not been found, and in which its presence was not suspected, should be observed for three to four weeks after

apparent cure; if, at the end of this period, no relapse has occurred, it is generally safe to discharge the patient.

CONCLUSIONS

Cameron (1929) commented on the rarity of conjunctival infection in cases of vulvo-vaginitis in little girls, and doubted the implication of the gonococcus. Rawlins promptly challenged this view with figures which made the gonococcus appear a very frequent factor, and she remarked on the surprisingly infrequent involvement of the eye even in proved adult cases of gonorrhœa. From recent observations, some compromise in these two opinions would appear to be more nearly correct. Paterson very fairly states the position of vulvo-vaginitis in saying: "All cases of vulvar or vaginal discharge in a child must be regarded as gonococcal until it is proved with certainty that the gonococcus is not present in the secretions and that there is some other definite cause."

All cases should be treated by admission to hospital and with complete isolation from all non-infected cases. Consideration of the resulting ill-health and infectivity of this disease has led to the suggestion that the condition should be notifiable. It is held by some authorities that the incidence of the disease could be controlled thereby, but there are several obvious disadvantages in such a scheme and legislation has not so far been introduced.

The physiological pre-puberty congestion with the accompanying mild opalescent vaginal discharge must not be confused with pathological vulvo-vaginitis. This change commences soon after ten years of age, and it will be remembered that at this time a pre-existing and resistant vulvo-vaginitis will become arrested by the changes in the mucous membrane from the infantile to the adult type. In association with local treatment, a temporary premature change of this nature may be obtained with œstrin therapy and may lead to a cure in a large number of cases. Sulphonamide therapy has, however, recently displaced treatment with œstrin in several clinics, and it is in this chemotherapy that the hope of the future lies.

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American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Monday, October 4th

LEWIS sent his car again. In the theatre I chiefly watched Krunkel, a senior registrar (or of that standing). Young was doing another perineal that I saw in bits. K. was finishing a goitre on a fibrillating patient. Avertin, gas, oxygen. Complete chart, very marked rise in blood pressure. Operation was careful and bloodless. Infra-hyoid muscles not split, wound not drained. He takes right side first, standing on right, and does not change sides. Interrupted silk to platysma; interrupted subcuticular silk to skin (looks nice).

2. Right inguinal hernia in boy about puberty. This said to be a Johns Hopkins operation up to date; thereby described fully.

Usual oblique incision. Clears external oblique well down to Poupart and rings as I do. Reflects external oblique cleanly. Picks up cremaster and tears a small hole in it. Enlarges this hole with Spencer Wells opened, picks up layers in turn through this hole and cuts with knife between forceps, without stripping them more locally. Finally opens sac and explores up and down with finger. Clears sac on finger with knife and swab; big sac. When partly cleared, opens it fully along anterior wall. Carries on dissection with knife right up to internal ring. (Why? He seems thereby to do a lot of damage to transversalis fascia at internal ring.) Closes sac by silk purse string from within; this again means very wide stretching, and closure too low. Cord has never been lifted out of inguinal canal.

He now repairs hole in cremaster with two X stitches of silk. Then takes four interrupted stitches of double silk from muscles well above conjoined tendon—pretty well at outer border of rectus—to Poupart. These were tied very tight. The external oblique was overlapped, again by interrupted silk sutures, lower leaf under upper. They overlap either way.

Cannot see this operation is good, especially in this case where simple sac excision is all that is required.

After these operations, Lewis took me over to see Max Brodel, the medical illustrator. There is no time to describe this visit. Brodel is really

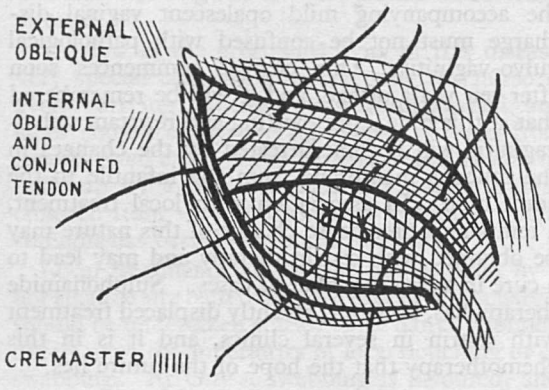

Fig. 39.

a unique person, who has lifted medical illustration to a plane that only genius and twenty hours' work a day could do. His artistry is only the foundation. He thinks and plans over the point to be illustrated, and finally does it in an inspired way that is obviously the right and only way. Witness his pictures to illustrate focal sepsis in the tonsil. But apart from his art, here is an anatomist and scientist. He spent nearly an hour with me over the rectus abdominis muscle He was asked to illustrate spontaneous rupture; he then asked himself why does the rectus rupture? what is its blood supply? He could find no answer, so he set out to find out, by embryology, dissection, injection, microscopy The result he has put in a series of wonderful pictures that have introduced a new method of illustrating and demand a new standard of colour printing. In brief, the painting and later the printing is done on both sides of the paper, so that it can be turned round or held to the light, a vessel disappearing on one side appears after traversing the muscle, somewhere on the other. Paper to appear in *Johns Hopkins Bulletin* for November. Brodel and Cohen (?).

He has five or six pupils at a time, and keeps them three years. They must be fully trained art students when they reach him, and he puts them to dissect for a year, and, as far as I can see, gives them hell. The unfortunate thing is he has no diploma, and anyone who gets fed up and clears off can call themselves Max Brodel students.

Evening spent writing fifteen pages of this.

Tuesday, October 5th

Lewis away. Taxi up to Johns Hopkins to spend morning with Reinhoff.

1. *Thyroid case.* Incision is small to my mind. He says they must be cosmetic here, and he makes the collar incision only the length from episternal notch to cricoid. I cannot see that another three-quarters of an inch each end would look any worse, and it would be easier. The usual careful hæmostasis; there were thirty Spencer Wells on the flap by the time he got to muscles. It would look neater if they tied them all off at this stage. Splits muscle on mid-line. Like Krunkel yesterday, does both lobes from right, starting with right lobe. Gets upper pole very nicely; first pushing Kelly's hæmostats in medial to it and opening them out, then grasping pole with Kelly and pulling down, and clamping vessels above pole and cutting. He insists on tying the vessels only; he says he sees a lot of recurrences in bit of upper pole that has been left, which still has its sympathetic nervous supply. He works round pole carefully, applying fine forceps and tying them till it is quite free. (Instrument he uses a lot is Kittner dissector. This is a small toffee apple*,

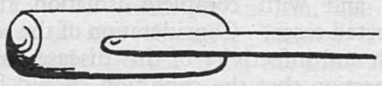

Fig. 40.

but point is that it is sterilised in saturated salt solution, so that when dry it is hard. There are special holders, but Oschner does as well.) When upper pole free, he pulls lateral lobe forward and ties and divides lateral vein, then inferior vein. Then by forceps separating and clamping any vessels that appear, he separates the isthmus from the trachea, cuts it across between Kelly forceps. Holding isthmus up, he cuts lateral lobe from within out, longitudinal to trachea, applies Halsted forceps (fine points) to vessels as they appear. (Must get rather close to nerve.) Ties off forceps and then goes to other side.

First takes out pyramidal lobe (a large one). This very important, not only to prevent recurrence, but because any enlargement is most ugly. Other side done in some way. Careful upper pole first, then side, then bottom, lastly slice from within out. Everything ligatured same fine silk. A few stitches on "French" needle (specimen). At the end the lobe is quite bloodless. No drain. Four or five interrupted silk to platysma, through and through silk to skin.

Dressing—saline gauze next to wound, to catch ooze for first few hours. Then lots of pads, firm figure of eight round axillæ, and strapping from top of dressing round chin and jaw. Idea is to

*Note.—"Toffee apple" is Theatre IV slang for a small swab on a holder.

keep head really still. Stitches out forty-eight hours.

He dislikes electro-surgery; another example of my belief that a good surgeon needs no diathermy.

2. *Carcinoma of cardia.* Incision a left Kocher. Again very careful hæmostasis, and nearly forty clamps were put on before the peritoneum was reached. Access to cardia was found to be insufficient, and he had to cut out on left costal margin, excising 2 inches or so of three ribs, dividing diaphragm widely, forcing ribs apart with Day spreader. Fortunately pleura was widely adherent, so no pneumothorax. The growth was a small one exactly at the cardia, but there was some indurated tissue on right crus of diaphragm which, sent for section, was reported malignant. He divided everything away from cœliac axis towards cardia, and finally cleared œsophagus and got two or three inches down. Very difficult through this exposure, and not clear what he could do next. Finally shut up with idea of removing it through thoracic approach in about a fortnight

He has succeeded twice from above by invagination method.

1. Opens diaphragm by incising tendon.
2. Frees greater and lesser curves for two or three inches.
3. Pushes rigid cardia down into stomach.
4. Stitch stomach round œsophagus.

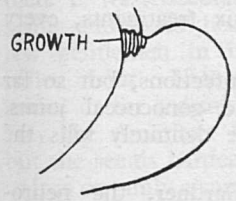

Fig. 41

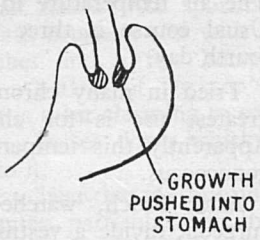

Fig. 42

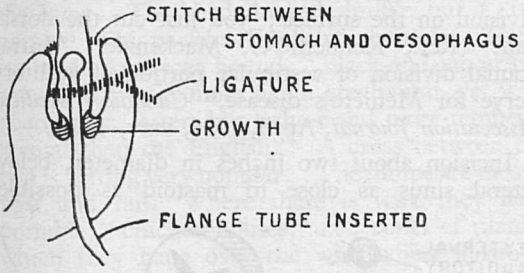

Fig. 43.

5. Opens stomach, passes flange tube into œsophagus, ties silk ligature tightly round intussuscepted growth to produce sloughing, and brings tube out through Witzel opening.

One died of other disease. One still alive after five years.

Chat with Reinhoff.

1. He is rather bitten just now with operating on acute gall bladders, but not dogmatic.

He is really keen on closing common bile duct after opening it, with running stitch of fine catgut, and a few interrupted silk to coverings. He drains down to duct, and gets as much bile leakage as after gall-bladder operation. As he says, one always dilates the ampulla, and drainage should be free. Recovery much smoother (? due to keeping bile for digestion).

Another dodge where stone is in ampulla, or even sometimes above where it can be pushed down, to make small opening in duodenum, cut on to stone, explore duct from below, stitch each side from mucous membrane to lining of ampulla, and close duodenum. Common bile duct is not opened and only precautionary drainage is needed. The ampulla is permanently patulous, and debris can get out easily.

2. *Rectum.* He is doing one stage conservative excisions, simply tying a flange tube into pelvic colon with silk all round—no suture, pulling this down into stump of rectum, suturing cut rectum round colon, and fixing tube only by safety pin outside skin, with gauze round it. In abdomino-perineals he is removing the last two pieces of the sacrum and the coccyx with part of levator ani, saying this is to make it more radical and remove pelvic floor more completely. (I argued this out, but feel he is not clear about it. I do not think he can do his resection from above nearly as far as Miles, or he would not have this need. Removing sacrum and levator ani seems unnecessary, and must interfere with function.)

He is keen as Ravdin about this zinc peroxide Dupont, but says quality does not matter. Just mix it with water to a mash. Fine for clearing rectal wounds.

Reinhoff gave me lunch and afterwards I saw :—

1. *Dr. Marshall,* the pharmacologist. An excellent talker, very keen that the place of pharmacology should not disappear, giving the only body of men dealing with experimental therapeutics and able to pronounce judgment on the products of the commercial chemist. These get more and more dishonest, and in Germany doctors are paid to publish clinical reports on new drugs, like duchesses and face creams.

Says prontosil has given pharmacology a new *raison d'etre.* First Koch believed we might kill bacteria in the body by chemicals, but found, using mercuric chloride, that though animal could tolerate several times the amount necessary to kill the anthrax bacilli given it, it died sooner

than an animal given no antiseptic. Subject lapsed for quarter of a century, then suddenly new light with Ehrlich's 606. Millenium receded when people found these intra-vitam chemicals only acted on protozoa, never on bacteria. Now comes prontosil, with boundless possibilities. One disappointment is that it does not seem to touch certain strains of streptococcus at all. Hopeful in dramatic cure of case of Lewis's with streptococcal sinus over two years, and gonorrhœa, where 85 per cent. clinical cures are being reported.

2. *Geshichter*. Great lad. An hour discussing experimental cancer. If I get him he is most keen on seeing if he can produce cancer in cancer-resisting rats by hormone administration. Cancer-prone mice mean very little. Di-benz-anthracene and so on always produces a squamous cancer, unlike that seen clinically except on scar tissue. But hormones produce all those degenerative and hypertrophic lesions we see in disease and consider pre-cancerous, and may produce cancer. He showed stacks of breasts with cysts, desquamation and papillomata of ducts, produced by œstrin.

He says in thousands of breasts removed for carcinoma, they only find cystic mastitis in about 1 per cent. In many there is no normal breast tissue. Either chronic mastitis has nothing to do with cancer, or it disappears before cancer appears.

Wednesday, October 6th

Had to be called at 6.15. Hurried breakfast and met Dandy at 7.45, Pennsylvania Station, for the New York express. Comfortable journey. Arrived at New York, I parked my luggage in the baggage-room, and we walked up to the Vanderbilt, picked up Lewis, a New York surgeon who owned the car, and a Jewish ex-patient of Lewis's who got the tickets. Apparently you need to know someone in the inner circle to get good seats for this show. We drove straight up to the Yankee Stadium, through Harlem, had a lunch off a "hot dog" stand, and got into our seats. The stadium, the ground, the crowd, most amusing; then bareheaded standing for the "Star-Spangled Banner," a little surprising. The game was said to be good, but baseball does seem a kids' game to me, and I should much rather have been back in Baltimore with Reinhoff. It was a sweltering muggy heat, that was most oppressive, and after marching about and an hour in a news theatre I reached the station worn out and with a bad headache. Fortunately the sleeper was pretty empty, and I got to bed soon after 9 p.m. and slept well. Americans have not learned how to start and stop trains; I imagine any driver in England would be sacked for the performance of these people at each station.

Re cinemas—a number of imitations of Walt Disney we never see. One series of "Pop-eye, the Sailor," was very good; last night's pretty bad. Best so far is a Harmanised cartoon about dogs.

Thursday, October 7th

Arrived Cleveland soon after eight. To Bolton Square Hotel, where I breakfasted and changed everything after the dirt and heat of the last twenty-four hours. Crile Clinic is just round the corner. Crile and Dickson away, but Pugh, Dickson's house-surgeon (?), takes charge.

Pugh took me round Physiotherapy Department. Very interesting talk on Fever Therapy.

The apparatus is a couch, with curved metal cover, only patient's head projecting through rubber diaphragm. Slide in cover to inspect. Under the mattress is a long V of a short-wave band, whick cooks up the patient's body lying on the mattress. Under is a water tray, a little radiator over it, and an electric fan—the idea being to circulate water vapour under the cover and saturate the air with moisture. The current is switched on and the patient's temperature brought up to 106-107° and kept there for five to six hours. His condition is carefully watched, and the fever is stopped if the pulse goes up more or colour gets bad; otherwise pulse, temperature and respiration is charted every quarter of an hour. The air temperature in the case is about 110°. Usual course is three to six treatments, every fourth day.

Tried in many chronic infections, but so far greatest use is for chronic gonococcal joints. Apparently this temperature definitely kills the gonococcus.

After lunch, watched Gardner, the neurosurgeon, divide a vestibular nerve for Ménière's disease. Apparently the auditory and vestibular are quite distinct histologically, but there is no division on the surface; you just cut the dorsal half. (Ref., Kenneth G. Mackenzie, "Intracranial division of vestibular portion of auditory nerve for Ménière's disease," *Canadian Medical Association Journal*, April, 1936, xxiv, 4, 369.)

Incision about two inches in diameter, below lateral sinus as close to mastoid as possible.

Fig. 44.

Divide dura close up to lateral sinus, and creep along posterior wall of petrous temporal, lift brain with lighted spatula. A very neat and careful technician. Intra-cranial detail hard to see.

He next did an alcohol spinal injection for pain. Alcohol, of course, rises, therefore side to be attacked is upward. It appears to attack pain nerves entirely in the doses used. Gardner says pain relieved without affecting skin sensation; as a rule no motor symptoms.

Absolute alcohol in 2 c.c. ampoules antoclaved (alcohol may contain spores). Inject 14 m. (15 minims in syringe to allow one for needle). In this case, old lady of about seventy with left lumbar pain. Laid on left side; novocaine between spines of D.X and XI needle pushed in, alcohol injected in about 10 to 15 seconds (too slow—diffuses; too fast—mixes; idea is to form puddle round two or three emerging nerves). After injection, patient is kept still for twenty minutes.

Fig. 45.

In the evening, Dickson drove me about ten miles out to a hunting club. It seems extraordinary to think of a club for fox-hunters, but there it was, decorated all round with sporting prints and foxes' heads and brushes, and with a few gentlemen in breeches and a few horsey ladies about. Nice girl, a patient of Dickson's, joined us for a drink. It is a bit alarming to see how the American flapper tosses down whisky, but she seems hardened to it.

It is certainly a surprise to hear that fox-hunting flourishes all over the States, particularly in the South. They say the fox is the same as ours; I wonder if any American indigenous animals are the same. The heads looked similar, but a little greyer. This pack has English foxhounds. There is also an American hound, " black-and-tan or tricolour, but built more like a greyhound, yet with good scent, faster, but lighter and more temperamental than the English." A cross between the two is getting very popular. The jumps are mostly post and rail. Where there is wire they have portable " chicken-houses," *i.e.*, pents of planks, which they hang over the wire where a run is expected.

Friday, October 8th

Whole day at the Crile Clinic. Before going to surgery I must put down the last two and a half hours spent with Crile, to try to get a little impression before it fades. This followed his operation for hypertension—to be described later.

He took me along to his really wonderful personal museum and talked his philosophy. A really wonderful man. Unorthodox to the limit, and perhaps easily demolished by those that know enough, but certainly honest, enthusiastic to the point of fanaticism, driven with fire that must inspire everyone here. After the cynical commercialism of W, the empty bluster of X, the tired philosophy of Y, and the happy, practical, fact-collecting and article-producing of Z, this is refreshing, but very tiring.

We have studied anatomy and physiology, biology, evolution, and are getting no further. He wants to study life purely from the point of view of energy, and to look for a common factor in the whole living world. This he finds in weight of brain and output of mega-calories under basic conditions (rest) for twenty-four hours. He has collected from every source the figures, weight of animal, weight of brain, output of calories in twenty-four hours, and finds that the last two are almost constant. He shows this on a graph at the entrance to the museum, with weight of brain on the vertical, calories horizontal, the scale being a logarithmic one, to bring in all from the mouse to the elephant. There follow all round the room exhibits, mounted in the most perfect manner, to illustrate his points.

Thus on this chart we have all the dots coming within a small limit of a diagonal line. (Man—primates, which are exceptions, were not shown.) We get some extraordinary contrasts, mounted together. For instance, a sparrow and a python, a rabbit and an alligator, differ to an enormous degree in weight, but in each pair weight of brain and output of calories are about the same. On the other hand, a dolphin and a shark of about the same weight, but brain of dolphin is much larger than man's and energy output is enormous. Shark has a tiny brain and is a sedentary scavenger, but in both brain-calories come to the same thing. Then in cases all round the room are mounted specimens of every kind, nearly all collected by himself. Two years ago he made a special expedition to East Africa for the purpose,* taking, in addition to ordinary necessities for safari, a travelling laboratory, a dissection team, artists, photographers, taxidermists and biologists. Each animal is mounted in an attitude of rapt attention rather than fear (when large, the head only is shown); there is one of the most magnificent

* Described in " Skyways to a Jungle Laboratory," by Mrs. Crile (New York, W. W. Norton & Co.).

elephant heads ever seen, and beside it a baby elephant. In each case he had to shoot the animal without destroying the brain, thyroid, heart or adrenals—a difficult job. In the case with the animal are also its heart, thyroid and adrenals, and their weight with that of the animal. These are, I believe, wax casts, but wonderful models.

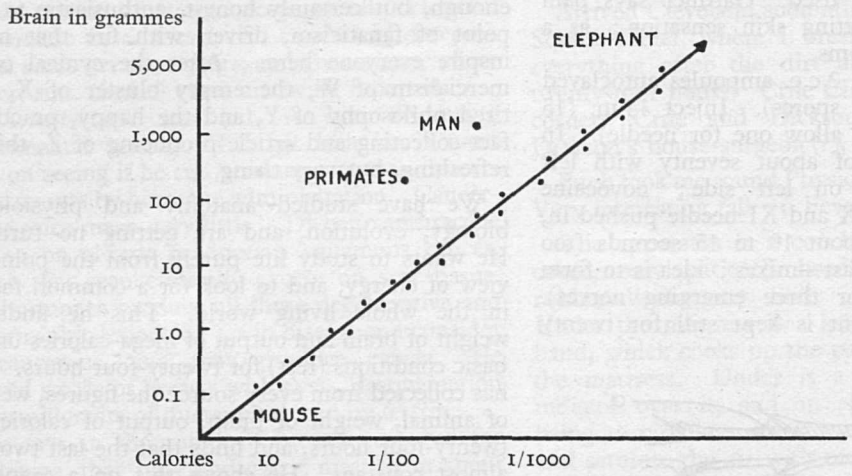

Fig. 46.

The thyroid and adrenals are governors of energy, the brain master of circulation. The thyroid governs constant energy output, the adrenal for mobilising energy in sudden spurts. Nearly all animals are either hunters or hunted, constantly alert for sudden crises; therefore in them the adrenal dominates the thyroid, and in all it weighs more. Only lords of the earth, who rise above hunters and hunted, and know no crises, have a larger thyroid than adrenals. This is true only of man—lord of the land, and whales—lords of the sea. The brain is the sparking machine. Size of brain is no index of intelligence, but only of metabolism. In man, however, there is a new element in brain, the neopallium, and the extent to which his figures diverge from the common curve of all animals indicate the relative importance of his neopallium to the rest of his brain.

With the adrenals comes the splanchnic plexus, and this he seems to look on as a second brain, a brain connected with energy, as the other is with movement. He has a long series of drawings of the sympathetic system, and finds that the splanchnic plexus increases in complexity as the animal's capacity for sudden output of energy increases. It is seen at its most complex in the lion. He compares it to the brain, saying the brain has only become a compact whole by the need to squeeze it all into a box, and in lower animals is a spidery thing like the splanchnic plexus. He believes that we may find different centres in this plexus giving different vegetative functions. I tried to go further into this, but he went off into imagery about motor cars, and I thought he was not very clear what he meant himself.

Then we went into his research building, where he has a large staff working on these ideas of his. One pair were dissecting a baby zebra. A physiologist was doing the basal metabolism of grasshoppers (they are getting on to insects), and find that they too seem to come into the brain-calorie curve.

To go back to the morning. I joined Dickson doing a plaster, but soon went off with Thomas Jones, a man ridiculously like Horder in looks and manner. He first showed specimen of colon removed for polyposis, the polypi very large in pelvic colon decreasing up to splenic flexure, then a few tiny ones in ascending colon. One was malignant. A year ago he operated, spotted malignancy, and excised a gland 1 inch from bowel, which confirmed the diagnosis. (By the bye, before laparotomy he had destroyed all papillomata within reach by diathermy through a sigmoidoscope.) He did an end-to-side ileostomy, butt-ending the distal ileum. The patient remaining fit, he reopened last week, found the malignancy no further advanced, and did colectomy down to his stoma. Result apparently excellent.

Then a number of abdomino-perineals, at which he seems to be a master. He gets plenty, has a mortality of about 8 per cent., and after seeing the cases I believe him. First one brought up the colostomy question. He does one-stage operation, and makes his colostomy in the incision —a mid-line one. He is all in favour of this mid-line colostomy. (1) Never gets hernia round it. (2) The colostomy, with pad on belt, makes a symmetrical swelling, unnoticed under clothes. (3) A bag sits comfortably, whereas in an inguinal colostomy it is interfered with by antero-superior

spine. I raised the question of strangulation of small intestine round it, and evoked a storm of eloquence. He says, very rightly, how can you strangulate gut in an opening half the width of abdomen? What does it matter if whole small intestine goes there? Anyway, he has never seen any trouble, nor has he seen it with a left inguinal loop colostomy. On the other hand, the people who try to block off the left flank are those who get trouble. If you have a big hole, no trouble follows; if you try to close a hole, any failure leaves a narrow aperture or a band far more dangerous. After operation the bowel distends with gas, and undergoes violent contractions to expel it. Stitches tear out, and gaps appear; if the stitches are in bowel wall you may get peritonitis; if in appendices epiploicæ you may get hæmorrhage. He is against fixing the colostomy in any way. He brings about 2 inches out and closes abdominal wall and skin snugly round it. There are always plenty of fat tags to stop it slipping back. In ten to fourteen days he cuts off redundancy with diathermy.

He closes his rectus sheath always with 31 gauge stainless steel wire (specimen given). Interrupted stitches, must be proper reef knot, then cut on forceps and twisted in. He says gives no reaction whatever, and even in infection does not give stitch sinus like silk. I saw any number of these cases, and it was astonishing. I am proud of my scars, but here a string of abdominal incisions in old people with a colostomy in the middle had healed as a thin line with no reaction of any kind.

Below he packs cavity with rubber dam filled with gauze; after four days he replaces with cigarette drain. Here the skin is closed with a steel subcuticular, and there are no stitches in the fat. The healing again is quite uncanny. There must be a lot in it.

In about 300 cases he has had something like twenty-five deaths, no intestinal obstruction, no peritonitis.

Case of lobectomy. Here he uses steel for the lung pedicle. It never gives a foreign-body sinus. Patient (four days) very fit. Tube joined to continuous suction, but almost dry.

Varicose veins. He thinks injection is no good by itself, or rather temporary; trouble again in six months. Ligatures internal saphenous in all of them, and does most of them ambulant.

About six more abdomino-perineals. All lovely. He has systolic and diastolic blood pressure charted, as well as pulse, temperature and respiration in all serious cases. This is done by the nurse, usually once daily, but up to four-hourly.

Dickson. Doing very nice work with Smith-Peterson pin. He uses a most simple method, that of White, N. Carolina, from whom he gets the instruments. Results so far as I saw there are second to none, and some in very old and feeble patients.

Principle is X-ray control on a Hawley table. He has two plate-holders. One is a shallow wooden box, kept under patient's pelvis, the table being made up to its level above and below. Plates are slipped into this as required for A-P view. The second is a vertical box on a stand; plates are slipped into this, a sterile towel over, and it is run against side of pelvis for the lateral. The sound hip is kept flexed throughout on a sling, so that the tube gets an uninterrupted beam.

First he reduces by Ledbetter's method (Ledbetter, J., "Bone and Joint Surgery," about 1928). Reduction made with hip flexed to right angle, knee over surgeon's shoulder, so that he gets very powerful traction by straightening his back. After traction he rotates internally; then brings down hip; abducts, and reduces internal rotation to about 20 per cent., in which position the normal neck of femur is horizontal. Now comes two plates to check position for complete reduction; without a lateral one often passes quite bad "step" as perfect.

In the A-P (1) he puts a lead mark where he thinks the head of femur is, and shifts it to correct position after seeing the film; (2) measures the length of pin required (distance of tube from films always 24 inches, distance of trochanter from film usually 6 inches, therefore length of pin is three-quarters of that appearing on film.

He makes about a 4-inch incision and clears trochanter, opens cortex with osteotome, and starts pin at point on shaft 1½ inches below transverse ridge on trochanter. The White apparatus is essentially a Smith-Peterson pin with a long extension screwing into the top, so that with this length you aim very accurately. Incorporated are simple dodges for impacting and extracting. He simply aims at the lead mark, and keeps his pin strictly horizontal. When it is halfway in, he has two more plates. If these are O.K., he drives the pin home; if there is any error, he extracts it and re-drives it in the correct direction.

Says operation takes twenty minutes, but with X-rays, whole job takes nearer two hours.

After-treatment. Bed nine weeks. Quadriceps exercises and knee movements after three weeks, hips movements after seven weeks, walk after nine weeks (when they seem to have very good movements). Two dodges: (figs. 47 and 48).

After lunch I watched Crile do his only operation —a left splanchnic ganglionectomy. Patient right lateral position. Long incision outer border

erector spinæ, carried up to 12th rib, finger pushing up pleura, and a little out into abdominal muscles

1)

Fig. 47

Lined plaster half-cast, as far as knee, to keep leg still and slightly inverted.

2)

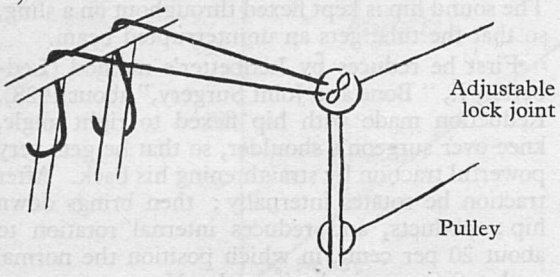

Fig. 48.

Very simple hook on extension pulley for foot of bed.

below. Pushes left hand, fully pronated, with back of fingers against diaphragm and palm pushing fascia, renal fat and all, off it. The whole operation is blind, and, for the watcher, a matter of faith. I was washed up and felt what I was told to feel, without conviction. He first identified the adrenal, and "denervated" it, *i.e.*, stripped it (I imagine) on all surfaces except the renal and hilum, tearing the many sympathetic fibres which his museum dissections show going into it. He continues by finger dissection in a very deep hole to separate the left semilunar ganglion. Coming to a stop, he introduced a small hook on a very long handle under it which an assistant pulls. Then a long 12-inch blunt dissector follows, which he works by touch; lastly, very long scissors. He describes dividing various roots. We had a gush of blood, from some cœliac branch, finally stopped by packing and application of long forceps by touch. The semilunar ganglion said to be cut by feel, but lost. He was obviously upset, says such bleeding quite unusual; that one can feel the semilunar quite clearly with practice, but nerve fibril and vessel on stretch feel very much alike.

Back to Dickson. Two more good things.

1. Fractured patellas. He is worried by frequent comminution of lower fragment, and by common grating after wiring, due to imperfect reconstruction of articular surface. What he does is: (1) excise lower fragment; (2) repair capsule laterally; (3) dissect V base down from superficial layer of rectus tendon; (4) reflect periosteum of upper fragment each side of median incision; (5) sew down rectus V into gap left by excision; (6) repair periosteum over it. X-rays and results look good.

2. Crush fractures of tibial condyles, with depression of one articular surface.

The very simple but obviously right dodge of *first* forcing knee into full varus or valgus and applying long plaster cast, opening joint, and by direct inspection, levering up articular surface and wedging it there with bone chips. Cartilage removed if damaged.

At night, dinner with Crile. A most magnificent house and kindly hospitality. One son (married), junior position in Clinic, one in motor works, one daughter. Married son, wife and sister off to Canada for moose-hunting.

Dickson showed three reels in colour film of a flight last summer from San Francisco to Hong Kong in a clipper ship. Impossible to exaggerate the beauty and interest of these films, which were really well taken.

Saturday, October 9th

Morning spent at Clinic, discussing all sorts of things with Jones and Dickson. Nothing particularly striking, except Miss Rowlands. An old lady, anything from 58 to 65, on the heavy side.

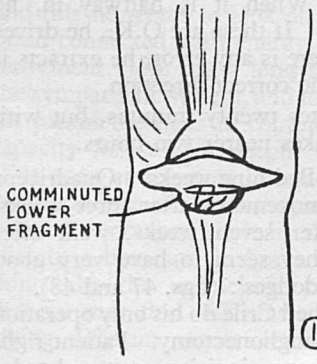

Fig. 49

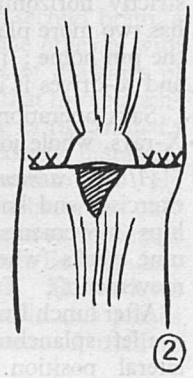

Fig. 50

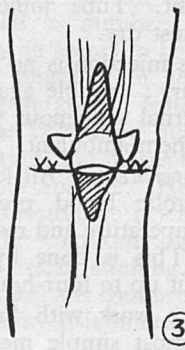

Fig. 51

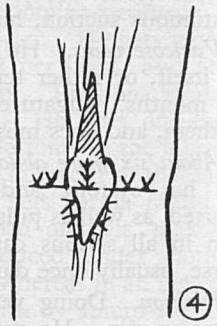

Fig. 52

Sitting in her office in the Clinic and holding all the threads of everything in her fingers. She gave me advice about what subject to take at St. Louis, how to tackle it, chose my title and is writing to Peck. She then got a bundle of notes and gave me every kind of detail about Crile's hypertension operations since they started. She must be worth any money to Crile, but where did he get her?

Dickson said he was taking me for the week-end to Erie, and to pack a toothbrush, which I did. We drove out first to Mentor, and called on Ridley's father-in-law, Colonel Frank Scott, whom I had rung up from Criles. A newly-built "Colonial" type house in the middle of a wood, led up to by a rather rough drive. It lies opposite to the very much more palatial estate of the young lady of the Hunt Club. Scott's house is a smaller one he built as his children left him; he has incorporated two personal fancies—an oriel window from Magdalen College, Oxford, and a french window opening from his library on to the lawn from the film of Disraeli. His hobbies are ordnance and the civil war, and he has a complete collection of American small arms and a pretty complete collection of civil war books. He was most warmly hospitable, and gave us tea —the first in a month.

After tea we set out to drive to Erie. It had started to rain, and seventy miles in dark and pouring rain with a continual stream of motor traffic going both ways was most trying. I found myself more jumpy than I should have imagined, and feel no desire to start driving again. It took three hours to do the distance, and we finally arrived in a long drive, which started with a steep hump made to slow up visiting cars and ended at a low wooden house.

(To be continued.)

Correspondence

Student Accommodation

To the Editor of the GAZETTE

SIR,—I admire the energy and exertion that you and the Warden are making on behalf of the College, but I do not agree that a new College should be built on funds raised by subscriptions, etc. On my first visit to Guy's, when I had already done my pre-clinical work, I tried to get rooms in the College, but without success. This fate will undoubtedly await others in the future, and parents who have contributed a large sum will want to know, rather in the same way as H.S.A. contributors do, why they are refused immediate admission.

Is it not possible to run the College as a business concern? A new College could, I presume, be built for approximately £60,000 for 60 students. This would include restaurant, library, the bar and the darts boards, etc. My own feeling is that we can dispense with the luxury of a V.D. Department in the basement as at the London, the purpose of which is not clear to me, because I was recently informed that the London had no V.D. Department for ordinary patients.

Sixty residents and students would have to pay 35*s.* to 40*s.* a week as rent for rooms. This would bring in about £5,000 a year if the rooms were full 46 out of 52 weeks on the average. The Club's Union would continue to contribute for library facilities, etc., and the Catering Company would hire the restaurant, kitchen, etc.

I do not know how much such a College would cost to run, but I see no reason why it should not pay as the present one does, as the rent of the rooms will be approximately double the present scale.

If you agree, Sir, may I suggest that you start the wheels moving. It is only a few years ago that a company was started to enable those not blessed with too much available ready cash to buy their practices. Possibly this subsidiary's parent company (of which I wish I were a shareholder) might be interested, provided you could persuade them that some forty students, exclusive of residents, are prepared to pay £2 a week to sleep in what must be one of the most unhealthy and uninteresting parts of London. I have presumed, probably quite unjustifiably, that the Governors will foot the bill for the increased rent of the residents. These last two criteria seem to me the most important. If people want better quarters they must pay for them, and in my opinion will pay for them if they are of the best.

Yours, etc.,

R. E. SMITH.

3, Horton Crescent, Rugby.

Sport

Cricket

CRICKET RETROSPECT

HELD in review, 1938 cannot be said to have been a good year for Guy's cricket. The defeat of a not very representative side by the Old Mid-Whitgiftians left us in arrears, having lost eight matches and won seven. As many as eight were drawn. The most important game witnessed the failure of what was quite a good side, when we lost to Bart.'s by five runs, but there are two games in which the side

really shone, though only one of these was won. We defeated Three Counties Hospital for the first time for ten years with only a mid-week side out; here the bowlers were the success, dismissing them for 95, but at Westcliff the batsmen were to the fore when we made 298 for 9 declared at over two runs a minute, and then were beaten in the last over by six wickets after some brilliant hitting—107 runs in 37 minutes, in fact.

L. G. Morey captained the side soundly, being ably assisted by P. H. Birks, and he again showed fine form in May, making 310 runs for once out in three consecutive games. He comes out top of the averages with 47.07, since A. V. Hurst, who came back into the side late in the season, though 48 did not qualify. J. H. Knight, the freshman from Charterhouse, proved a very solid asset. His 29 wickets at a cost of 14.07 represented some excellent work, particularly with the new ball, and it was a pity he was unable to play more. Among those who did not qualify here were A. V. Hurst, with 2 for 28, and Lovell Garrett, with 2 for 18.

The other great misfortune was the cancellation of the Channel Islands tour owing to our inability to raise a side—a side of cricketers that is! Pressure of work and the rigours of a niggardly exchequer were too much for most people.

Statistically we gave better than we got, scoring 3,870 for 180 wickets, an average of 21.5 per wicket, as against our opponents' 3,713 for 179 wickets, an average of 20.71 runs per wicket. The leading averages were :—

Batting

	Innings	Times Not Out	Runs	Highest Score	Average
*L. G. Morey	18	4	659	114*	47.07
G. H. G. Chase	14	1	418	94	32.15
P. H. Birks	16	2	400	98	28.57
G. O'Gorman	17	2	347	100*	23.13
Dr. H. D. Foster	12	1	237	67	21.54
A. C. C. Hughes	16	2	296	55	21.14
C. L. T. McClintock	13	3	158	56*	15.8
†H. A. Thomas	17	2	229	32	15.26
Also batted, without qualifying :—					
A. V. Hurst	5	2	144	54*	48.0
J. A. L. Leeming	4	2	30	17*	15.0

Bowling

	Overs	Maidens	Runs	Wickets	Av.
J. H. Knight	130	24	404	29	14.07
C. L. T. McClintock	216.1	28	742	48	15.45
G. O'Gorman	157	2	811	39	19.65
*L. G. Morey	110.2	12	456	20	22.8

Hospital Information, etc.

Pass List

UNIVERSITY OF LONDON.

SECOND EXAMINATION IN DENTAL SURGERY.

July, 1938.

D. M. Cushing — N. S. Harris
D. P. Finnegan — W. J. Head
W. G. Gross — K. B. Lole
J. G. Hancock — K. R. Titford

THIRD (B.D.S.) EXAMINATION IN DENTAL SURGERY.

July, 1938.

Pass.

P. K. Hopkins — D. G. Sharp

Supplementary Pass List.

The following students have passed in Group II.

A. G. Beaton — J. C. Coe

SECOND EXAMINATION IN DENTAL SURGERY.

PART I.

July, 1938.

H. A. Buck — N. M. Midgley
R. E. Matthews — P. H. Staple

The following students are credited with Anatomy and Physiology.

W. J. Ford — Allan Ross
Eric Horne — A. J. Walters
James Rankin

SOCIETY OF APOTHECARIES OF LONDON.

FINAL EXAMINATION.

July, 1938.

Medicine.

*W. A. Groom.

Forensic Medicine.

*W. A. Groom.

Midwifery.

I. J. Mathias.

* Has now completed the examination.

Changes of Address

B. W. Sage, L.D.S., R.C.S., 32, Brunswick Place, Hove, Sussex. *Hove* 2607.

W. A. Steiner, B.D.S., 2, The Lawn, Budleigh Salterton, South Devon. *Telephone* 552.

M. A. Partridge, Phipps Clinic, Johns Hopkins Hospital, Baltimore, Maryland, U.S.A.

Births

PUGH-JONES.—On August 9th, 1938, at The Grove Nursing Home, Isleworth, to Vera Marjorie (née Cole), wife of Dr. E. Pugh-Jones, of Lyndhurst, Montrose Avenue, Whitton, Middlesex—a daughter.

SPILLER.—At Barton House, Halstead, Essex, to Joy, wife of J. G. Spiller—a daughter.

EDS. { H.B.O.C. C.H.E.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — *10th September* 1938 — *Number* 1308

PASSIM

SUNDAY at Guy's has an atmosphere of its own, combining the peaceful calm of an Oxford college with the intense boredom of the desert. The patients are guarded carefully enough from the unnecessary attentions of the more enthusiastic doctors, and protected as well as can be from the onslaught of visitors. From time to time circumstances compel us to be in a ward during the evening, and we come away with very mixed feelings. Is the contemplation of the End and Afterwards really a very Good Thing? Is it right or proper that when one is on the banks of the Styx that one should be introduced to the ferryman by the light of the unquenchable fire? Should we raise our feeble voice to sing hymns of death or prick our ears to listen to tales of this life of woe? Is it any better to have pictures of the fleeciness of Heaven with its haunting melody of harps painted before our papillœdematous eyes? Is not, in fact, Religion of the Dark Age, lay preacher type, more a wolf in sheep's clothing than a blessing in disguise? Is it our business to wonder at all?—but some of us, in exasperation, perhaps, at our own inability to administer physical betterment or comfort, feel with more than a passing emotion that hope, faith and strength of will, each one a *sine qua non* in medical treatment, are better attained by attention to the thoughtful sense and guidance of the Authorised Version than from the mediæval Hell-Fire theory.

THE most significant reaction arising from the reopening of Astley-Cooper is one of relief. It is only too obvious how essential a feature of any hospital is a male accident ward, and the closure of Astley-Cooper proved not only something more than an inconvenience to every house-surgeon, but also to the student no small loss of experience, every bit of which is valuable, in the troublesome management of all the common (and litigenic) injuries.

The last week saw a reshuffling of the special department beds in the Surgical Block. That cheerful apical seat of sepsis known familiarly as "Pat and Sam" has been all but eradicated, to be replaced by a modernised Genito-Urinary unit which includes its own up-to-date cystoscopy theatre and a newly installed vacuum suction apparatus to take the place of the time-honoured Sprengels. A little pus remains in Samaritan, where there are six female septic beds. This concentration of Mr. Doherty's once widely scattered beds is, of course, a most sensible change. Equally so is the establishment of Orthopædic beds in Astley-Cooper amongst other clean cases. Christopher, however, retains its variety, housing now, in addition to its usual Ear, Nose and Throat patients, septic cases and contaminated injuries.

THE pen is credited with being mightier than the sword. In a modern crusade there is little doubt that the pen makes a handier and more effective weapon, especially if wielded by a competent hand. In the past the *Gazette* has fought many a hard battle on these pages, and has a goodly number of victories to its credit; perhaps the chief among modern wars being the long guerilla campaign waged over the College and its rebuilding. As we look back and consider the enormous difficulties and setbacks that have been the lot of a leader in this fight we must think of Mr. Bruce Cardew, who has just retired from the Editorial chair, and who for so long was unafraid and unabashed in his persistent effort against overwhelming odds. He has, during his term of office, followed sound tradition and made these columns a crusading battlefield, but has had the happy knack of sowing it with flowers attractive enough to hide the scars. To think of him in connection with the College alone would be a dismal and churlish thought for his writings on many varied subjects were amusing and stimu-

lating, doing much to brighten the pages of what must be a parochial publication with its attendant tendency to bore the reader. Nevertheless, if and when a more splendid building is raised in place of the present College, certain credit will go to Mr. Cardew, whose pen has transformed more than one non-combatant into a fanatical believer in the importance of new Club Union premises for the student. We say goodbye to Mr. Cardew and take this opportunity to thank him for his services to the *Gazette*, and through its columns to the Hospital generally. We wish him success in the future and pray that in his lifetime he may see some result from his tireless efforts for the Guy's student.

We are lucky in that Mr. W. E. Young has consented to become Assistant Editor, and feel certain that no more happy choice could have been made.

ENTHUSIASTS are reminded that the rugger season is once again upon us, and the 1st XV will open their programme against Catford Bridge on Saturday, September 17th, at Honor Oak Park. It is hoped that as many as possible will go along to give the side a good send-off.

The new fixture booklet is now on sale at the very low price of 6*d.* and may be obtained from the Hon. Secretary, Rugby Football Club. All applicants by post are requested to enclose 7½*d.* to cover postage. As the booklets are being sold

below cost we hope that the reduction will bring in a fair income to help defray expenses. Moreover, the booklet has been much improved, the outside cover being of blue linen, lettering in black, with a die-stamped crest in gold. The layout of fixtures has been given more space, and where there is an " away " game the whereabouts of the ground is given.

THROUGH the generosity of Messrs. Derry & Toms, the Hospital has benefited to the extent of four hundred pounds, the proceeds from visits to their roof garden during the past week being given to Guy's. Visitors were received on the first day by the Treasurer and Lady Nuffield, and on subsequent days by other distinguished people associated with the Hospital.

We publish two photographs of Lord Nuffield on the opening day, one in which he is seen selling his autograph, at a shilling, for the Hospital.

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Obituary

DR. THOMAS DAVIES HARRIES

ON July 14th, 1938, one of the best-known Welsh practitioners of Guy's died at Grosvenor House, Aberystwyth, in the person of Dr. Thomas Davies Harries, J.P., F.R.C.S. (Eng.), M.R.C.P. (Lond.). He was a contemporary of C. H. Golding-Bird, Esq., the Senior Honorary Consulting Surgeon of Guy's. Dr. Harries entered Guy's in 1867, and brought with him all the sporting characteristics of his native county of Pembroke. He was an expert fisherman, a good judge of horseflesh, and an excellent rider to hounds. Whilst at Guy's he became prominent as a boxer.

He had an exceedingly fine bedside manner, and

invariably won the confidence and affection of his patients. His practice was a very extensive one, and at one time included the largest consulting practice in Mid-Wales. Patients whom he treated at Aberystwyth frequently wanted him for consultation, and that before the days of motors. Despite the calls of a large and busy practice, he was in 1877, after settling in practice, awarded a Fellowship of the Royal College of Surgeons (England). He was also a member of the Royal College of Physicians (London), and an Honorary Fellow of the Royal Society of Medicine, as well as of the Royal Society of Public Health. He was also an Honorary Surgeon of Aberystwyth Infirmary and Cardiganshire General Hospital.

Amongst his closest friends at Guy's was the late Sir Samuel Wilks, who advised him to settle down at a seaside resort. As a consequence, Aberystwyth became the place of his choice, and for sixty years and upwards until his death he resided there, taking an active interest in all phases of public life and contributing his share to the management and government of the town by serving as Town Councillor, Alderman of the Borough, and Mayor of the town on more than one occasion.

Not the least of his remarkable characteristics was his wonderful versatility. His interest was not entirely confined to his practice, but included a close study of lead mining and engineering problems connected therewith.

He married Miss Annette Benson, of Royal Avenue, London. When they celebrated their diamond wedding on December 5th, 1937, they received a telegram of congratulation from the King and Queen. A daughter and four sons were born—Miss Norah Harries, Messrs. Thomas Clifford, David Lionel, Archie Wilkin de Winton and Eric Guy Harries.

The last-named was a Captain in the Royal Welch Fusiliers, but was killed in August, 1915, near Suvla Bay.

The writer, a Guy's man of 1891, had the good fortune to be one of his personal friends for a period of nearly fifty years, a friendship which ripened with the course of years to a very intimate and personal one. The writer can also testify during his first years in practice to much help and encouragement at his hands, and also to two years' gratuitous service during the war years as his deputy as Medical Officer of Health of the Borough of Aberystwyth.

Hospital Appointments

MEDICAL SCHOOL

The following appointments and reappointments have been made by the School Council; duties to commence on October 1st, 1938 :—

Medical Registrars—
Dr. C. S. Darke, appointed for two years.
Dr. J. R. Forbes, appointed for two years.
Dr. R. S. Bruce Pearson, reappointed for one year.

Resident Surgical Officers and Registrars—
Mr. W. G. Gill, reappointed for one year.
Mr. S. H. Wass, reappointed for one year.

Clinical Tutor in Charge of the Preliminary Period Class—
Dr. G. A. M. Lintott, reappointed for one year.

Surgical Clinical Tutor—
Mr. P. W. Clarkson, reappointed for one year.

Obstetric Assistant—
Mr. J. B. Blaikley, reappointed for one year.

Assistant to the Guy's Hospital Clinical Research Fellow—
Dr. J. R. Forbes, appointed for one year.

Demonstrator of Anatomy (Part-time)—
Mr. J. M. Brown, appointed for two years.

Resident Anæsthetists—
*Mr. A. Brown, reappointed for six months.
*Mr. A. Shein, appointed for six months.

Demonstrator of Pathology with Charge of the Clinical Laboratory—
Dr. R. L. Waterfield, reappointed for one year.

Demonstrator of Pathology (Whole-time)—
Dr. S. J. de Navasques, reappointed for one year.

Demonstrators of Pathology (Part-time)—
Dr. W. F. Dunham, appointed for one year.
Dr. S. J. Hopkins, appointed for one year.

Griffiths' Demonstrator of Pathology—
Dr. J. C. Colbeck, reappointed for one year.

Demonstrator of Physiology (Part-time)—
Dr. N. M. Jacoby, reappointed for one year.
Mr. J. H. Brown, appointed for one year.

Demonstrators of Chemistry—
Mr. F. H. Brain, reappointed for one year.
Dr. B. Levin, reappointed for one year.

Demonstrator of Chemistry (Part-time) and Assistant Lecturer in Dental Metallurgy—
Mr. S. Holt, reappointed for one year.

Demonstrator of Physics (Whole-time)—
Dr. A. C. R. Wakeman, reappointed for one year.

Demonstrator of Physics (Part-time)—
Mr. C. W. Wilson, reappointed for one year.

Demonstrators of Biology (Whole-time)—
Mr. E. W. Baxter, reappointed for one year.
Mr. J. S. Wilkie, reappointed for one year.

Demonstrator of Biology (Part-time)—
Mr. F. J. Aumonier, reappointed for one year.

* Appointments to date from 1st July, 1938.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Sunday, October 10th

BEST to describe the house as a whole. The people are wealthy paper manufacturers who have probably been wealthier. He is obviously German, she probably so, both very interesting. He is an excellent talker and *raconteur*, because he is accustomed to authority and holds the stage naturally, talking slowly, not forcing his point. He has a dry, simple humour that reminds me of father; thus he introduced a friend as "one of the best chess players in America, one who has never been beaten by either Capablanca or Alekhine." Said seriously; the point being he had never played them. Again talking seriously about welfare work in Erie, he said they had had a very awkward incident at the factory crèche: at closing time they handed out the babies in quick succession, and one woman took a bundle without looking at it, and when she got home unwrapped it and found a healthy little baby, but coal-black. She was a negress herself, and so on. Apart from that, he is interested and informed on every kind of activity, and has travelled, as far as I could make out, to every corner of the globe. They had a large steam yacht, the *Amida*, in which they have travelled much; she is sold, but the steward and some of the fittings are at the house.

The hostess is a most charming and cultivated woman, and the house shows the most remarkable taste. It is packed in every corner with things such as few people could collect, for they come from every land and age, and are all chosen for their beauty and interest, but not all expensive. For instance, in a short connecting passage the left wall is a long flattened bow window, with curved shelves on the inner side of it packed with glass through which the light shines. This is all chosen for effect. Some is that expensive ruby all with cut figures; some is old Roman. At the other extreme are a series of bottles of different size that housed a proprietary cod liver oil, made of orange glass in the shape of a fish. My room was the most beautiful I have ever slept in, and might have been made for me. Everything was either blue or nautical, except the large four-poster bed. I cannot remember half the things, but there were all sorts of ship models, Copenhagen mermaids, and Chinese junks, and ships in large glass jars supporting the lamps. The bathroom had navy blue towels and tiles.

Outside next morning was equally interesting. There is a swimming pool, with the *Amida's* buoys round it, a dogs' compound with basking platform, a large barn with stables and horses under, and a farm with plenty of woods. Most attractive is the old barn, like an English farm barn, which is used as a dormy house—the great big hall lightly furnished, and two rooms at one end with a gallery above, ships' bunks in each and a bathroom between.

The day was spent in a country walk between breakfast and lunch, and a rather hectic lunch, tea, dinner afternoon. Crowds of people arrived for and between meals, and they were all a little confusing, but all very charming. The others staying besides Dickson and myself are:—

1. A most charming married lady from Pekin. She considers Pekin the best place in the world, and fully intends to live and die there. She has built up a very successful personal business for selling Chinese antiques in America, and also producing painted silk panels that are used as wall decoration.

2. An American lady with her second husband, a blonde Frenchman of about fifty with a German name. He is an artist and has got the idea of adapting Walt Disney's technique to the teaching of history. Most people probably think it as potty as I do, but they are doing all they can to help him, with introductions and so on. He is looking for someone to back him financially.

After one of the most entertaining days I have ever spent we left at 9.15, and got back just after midnight.

Monday, October 11th

Got up early and packed. Then went to Lakeside to see Beck. He was operating for a spinal cord tumour, and removed a large meningioma growing from an anterior root and lying in front of the cord, very nicely. The anæsthetic —avertin and ether in an ether machine—was given by a woman with the usual American perfection, a complete chart being kept all the time. The hospital is a fine up-to-date building, and I wish I had spent Saturday morning here. I should like to see Beck and hear about his hearts (? between Chicago and Toronto).

These small scyalitiques on stands they all use would be most useful at Guy's.

Met Miss Angel, who worked with Simpson Smith at the Massachusetts General, and wants to be remembered to him.

Train 12.30. All their stations seem marvellous. The countryside on the other hand is dirty and untidy, and there seems to be far more waste land than fertile. Changed trains at Chicago, a sleeper for Rochester, and settled in early to the usual gymnastics. Slept badly, partly, I think, from excitement, and woke up to the most interesting country so far—wooded hills and streams and corn land.

One attraction on the train is the meals. They are simple and informal, but very good. For supper and for breakfast I had canteloupe melon, eggs and coffee. As far as Chicago I travelled with a surgeon from Nevada, whose name I do not know, but who is coming to the Mayo Clinic to-morrow. There are only two topics everywhere—war, and America going to the dogs under Roosevelt, with Windsors as an occasional change.

Thursday, October 12th

Rolled into Rochester about 8.20. Rumour says true; it is a tiny town just grouped about the Clinic. A bus meets the train for three hotels. I took the Kahler as being next the Clinic, and find it is part of the show. The Clinic itself is next door, a beautiful building about seven years old, semi-skyscraper (I suppose about thirty floors in the central tower), built of the lovely warm honey-coloured brick, and finely proportioned. The Clinic is purely diagnostic, and seems to be pretty much the same system on each floor—a waiting-hall, secretaries all round it, and grouped consulting-rooms. On Floor 3, the main surgical one, is a staff room, the walls covered from floor to ceiling with framed certificates, degrees, honours, orders and awards to Will and Charlie Mayo. The ante-room has glass cases each side with the robes of their honorary degrees.

To get to surgery, I had a message to see Balfour and Will Mayo, but both were out. A young surgeon took me along to St. Mary's, the chief hospital. They operate here in the morning, in the afternoon at the Colonial and the Kahler. This hotel is half hospital, and there is a row of theatres on the seventh floor.

Walters was closing an incision after exploring right supra-renal. He had several interrupted and one running catgut in the fat layers, and silk blanket stitch to skin.

While the other side was got ready, went to *Dixon*, who was finishing a hernia. I could not see the technique, but it was some form of Bassini. He discussed injection of herniæ. Said they had done about forty, many recurrences. He had had to operate on one done elsewhere, that recurred first one side then the other. Repair was very difficult. Atrophy of testes was often seen.

He then operated for gall-stones, with umbilical hernia. Right paramedian, rectus fibres being cut near their border, possibly accidentally. He seemed to tie his vessels with half-stitches. Anæsthetic spinal, not quite high enough. Closed umbilicus from inside with purse-string, removed a very diseased fatty gall-bladder. Technique very much the same as Guy's.

The non-sterile help in theatre wear gowns and gloves—worth thinking about, but they should be distinctive colour.

Walters was now attacking the left supra-renal. He used a long oblique renal incision, and snicked arcuate ligament, but did not divide twelfth rib. With good anæsthesia and good retraction he had a fine exposure (two male assistants and one theatre nurse). Adrenal was again normal, opened peritoneum to feel ovaries and shut up.

Have had twenty-five cases of virilism in twelve of which they found adrenal adenomas. In one there was a thymoma. In one bilateral adrenal hypertrophy without any adenoma; partial resection both sides, later died of septic throat, the only death in the twenty-five; post-mortem showed no other causative lesion. Other things, basophil adenoma of pituitary, arrhenoblastoma of ovary. Hypertrophy of clitoris (which to-day's patient had) very suggestive of adrenal tumour. Diagnosis difficult; air injections into perirenal fat are not safe.

As well as cortical adenomas of adrenal, there are benign ganglionomas of medulla. They have removed three such tumours at the Mayo Clinic. Give rise to paroxysmal hypertension, attacks of headache, weakness and high blood pressure brought on by exertion, or by putting hands in cold water.

Walters then tackled a kidney. Braasch, who I had thought was surgeon, but who apparently is a diagnostic urologist, first gave a full account of the case and its investigations—briefly, a young woman with two small stones lower pole of right kidney, and four small stones lower pole of left, but ptosis, some dilatation of pelvis, and pain on the right. Oblique incision keeping above L.1 nerve. In sewing up after he is very careful that all his stitches are superficial to this nerve. The ptosed kidney came out like jam, but was very beautifully and gently cleared with Mayo scissors.

Before incising pelvis he puts in two small stitches and cuts between them with a knife. They keep the incision open and in view. He got one

small stone with a bit of difficulty. The second he could not get. They then brought in an X-ray

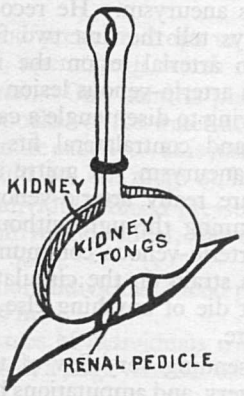

Fig. 53.

machine. The tube covered with sterile towels was one side, the radiologist sat on the other with a screen viewer strapped over his head. The kidney was held up in an aluminum box, so that it was right outside the loin and straight in the cathode ray. They spent nearly an hour, pointing at the site of the remaining stone, then putting in needles in various places and giving the direction of their points; lastly several plates. Finally he had to give it up and drained the kidney by drawing an "18" catheter into the pelvis on a curved forceps pushed out through the lower pole.

Braasch remarks how normal these kidneys, rather rough-handled in removing stones, appear to be when investigated six to twelve months later.

He was saying that per-urethral prostate operations here practically replaced all others at the Mayo Clinic. Last year there were about 900, and only one suprapubic. Recurrence of stones after removal here is about 5 per cent. Small bilateral stones, such as these, very apt to be due to infection and more likely to recur.

Walters finished by nephropexy of a simple type.

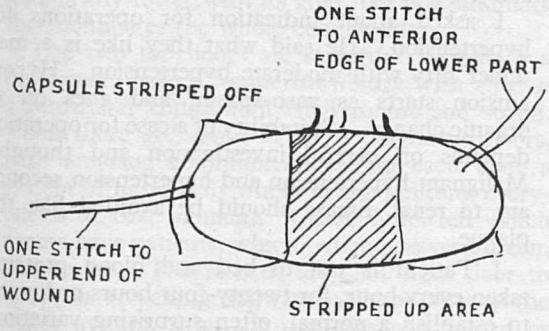

Fig. 54.

It seemed to me that kidney was fixed rather far out, *i.e.*, near the surface.

Balfour took me to lunch at his house. I was delighted after what I had heard to see him looking very fit.

After lunch, went to the Kahler to see *Pemberton* doing thyroids. First case old woman, operated on some ten years ago, now has large intra-thoracic goitre and double abductor paralysis. Anæsthetic first infiltration of novocaine, then intratracheal gas O_2. Horrible scar tissue, lots of blood; really nasty case which he got through calmly and safely. At the end put two silk loops round a tracheal ring on each side and brought them out through the wound, so that a tracheotomy could be done instantly if required.

Remarks.—He does no preliminary ligation, and a two-stage operation in not more than 2 or 3 per cent. of cases.

Pemberton's second case was a Graves', with a basal metabolic rate of +48. Rather small incision, raising flaps and hæmostasis adequate. Muscles split, lobes removed chiefly by dividing isthmus and working from within out.

After this, met Balfour again, introduced to Will Mayo and many of the surgeons, and attended a surgical consultation with Walters—very well done. Patient knew all her blood urea and so on. Walters's summary was absolutely admirable. It was a woman of about fifty, looking younger, with an older husband; they knew all their problems and were facing it. She had had a pyonephrosis of one kidney removed a year or two ago by Walters. She now had a stone in the other kidney. It had been investigated six months ago, when it was a round shadow in a lower calyx, and it had since grown to form a cast of the lower half of the pelvis. She was getting attacks of infection with great pain. Blood urea was 68. I should have advised operation, seeing no hope for her. Walters summarised the whole thing very well, and, without frightening her, pointed out how great were the risks, not only immediate, but of damage to the kidney and recurrence. It was a masterly handling, and in a clinic run for profit, most praiseworthy.

Dinner at Kahler, and went to bed early to try to get rid of ghastly cold caught in the train. This is a truly phenomenal town. From the top of the Clinic you can see beyond it to open country all round. The whole place exists for the Clinic, and I do not suppose there is one living soul in it not dependent on the place, either directly, or by the way of educating their children, feeding them, or mending their cars. The Clinic, of course, is owned by the Mayo Foundation. St. Mary's is owned and run by nuns. The Kahler, Zumbro and Damon Hotels, and the Kahler and Colonial Hospitals are all owned by the Kahler

Corporation, and the Clinic and all the hotels and hospitals (except St. Mary's) are united by subways under the streets, along which are barbers' and chemists' shops, and shoe-shiners. Apart from hotels, there is an enormous trade in lodgings, single rooms, flats furnished and unfurnished, to take patients under investigation or their relatives, convalescent places ranging from lodgings with a nurse to elaborate homes, and invalid transport everywhere.

Wednesday, October 13th

Up to St. Mary's to see *H. K. Gray*.

1. Gall bladder. Paramedian incision, rectus retracting, wound guards, and four saline pads on top of these. Gall bladder normal outside but full of stones. Cuts along serous coat with knife just like I do; in fact, technique very much like ours. Uses needles identical with my No. 4's. Peritoneum over and over stitch.

2. Man of seventy-seven. Carcinoma of head of pancreas, with deep jaundice. Kocher incision. Fixes wound guards with large three-bite towel forceps, free bile-stained fluid. Gall bladder contained only white bile. Drains gall bladder with "dressed tube."

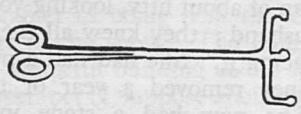

Fig. 55.

(They are too large and handles are in the wrong plane, but it might be an idea to have mine wider —say 1½ inches—they would lie flatter.)

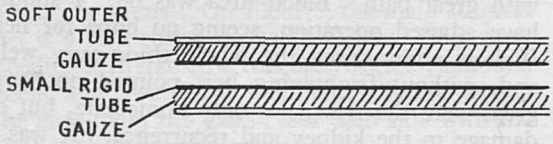

Fig. 55.

Next day the drainage had become bile.

Went to another theatre to see young C. H. (Chuck) Mayo removing a very large fibroid uterus. Seemed to have a difficult job, but tackling it well.

Was summoned from this theatre by the ever-hospitable Balfour, who took me to the medical side to the "arterial disease" group. Three complete enthusiasts—Dr. Horton, Grace Roth (physiologists), and a physicist—who poured out information for two hours, of which 5 per cent. stuck, and loaded me with reprints.

First a talk with the physicist, over sound pictures on which he is very keen. A bruit can only be due to three things: compression of an artery by something outside, an aneurysm, or an arterio-venous aneurysm. He records the sound and can always tell the first two from the third because in an arterial lesion the noise stops at diastole, in an arterio-venous lesion it never stops. They were trying to disentangle a case with a large scalp vessel and contralateral fits—? intracranial angeioma or aneurysm. A goitre and a sarcoma with bruits are really arterio-venous aneurysms, the blood running through without de-oxygenation. Any arterio-venous communication throws a tremendous strain on the circulation; if a sarcoma did not die of anything else, he would die of heart failure.

They are sending very few of their thrombo-angitis to surgery, and amputations have practically disappeared. They reserve sympathetic operations for the younger people with a good vaso-motor response, whom they can get to work and who require a safeguard. They say sympathetic operations stand test of time well. They generally use all methods of vaso-dilation and observe skin temperature, before making up their minds; alcohol (a stiff highball with 1 oz. of whisky), spinal, typhoid vaccine and immersing another limb in hot water.

About the other cases, the great thing, as with diabetics, is to teach them the nature of their trouble, and the life they can lead. If they restrict their activity they very often improve. Quotes man who ten years ago could only walk half a block without cramp; now can walk three blocks. In addition, circulatory gymnastics: (*a*) the glass boot; (*b*) even better the tilting bed (old man reading a paper on one, being tilted feet up 30° for 20 seconds, then feet down 30° for 20 seconds), angles and time are variable. Well-to-do patients buy a bed for home. No drugs of particular value. Ætiology still vague; Jewish race and cigarettes favour onset, but not the whole story.

I asked about indication for operations for hypertension. He said what they like is a man under fifty with moderate hypertension. Hypertension starts as vaso-spasm, and goes on to organic change. Suitability of a case for operation depends on careful investigation and thought. Malignant hypertension and hypertension secondary to renal disease should be avoided like the plague.

1. Patient is put to bed and blood pressure taken every hour, for twenty-four hours or longer, to establish a normal, often surprising variations in a day.

2. Given sodium nitrite, to see drop. This acts peripherally

3. Also given sodium amytal by mouth, and anæsthetised by sodium pentothal; these act cerebrally.

If the blood pressure drops to normal and the patient is fit, operation is worth considering.

The cold test.—One hand is plunged up to the wrist into a bucket of ice water at 4° C., and held there one minute exactly. It is just a pain stimulus and heat would do, but more difficult to control.

Normal individual, blood pressure rises 20 m.
Hypersensitive individual, blood pressure rises up to 50 m.
Hypertension individual, blood pressure rises up to 100 m.

If family trees of individuals with hypertension are investigated, a large number of hyper-reactions will be found.

Paroxysmal hypertension is not brought on by cold; only exertion or excitement. Attacks like paroxysmal tachycardia, headache, dizziness, bursting chest, and so on. Last half to three hours.

At 12.30 I went over to the Kahler to see Dixon operating on a carcinoma of ascending colon. He is very cautious, nearly always a two-stage. Here he did a lateral ileo-transverse anastomosis, and will resect in about a fortnight's time.

Hurried lunch and then over to Balfour, who is a man of wide interests anxious to talk over anything, and particularly to hear outside opinions of the Clinic.

His secretary took me a tour of the building—of intense interest, but only to be described briefly. In the tower is a carillon presented by Will and Charlie in memory of war dead. It plays the hours, and there is an hour's concert on it on alternate evenings. I gather it can be played by ropes or a keyboard like a piano, or by records like a pianola. There is a man in sole charge of it. Later in the evening we had the concert, and "believe me if all those endearing young charms" floated over the harvest fields around. The tawny tower with its gold roof is a landmark that dominates the whole countryside.

The two top floors are scientific. There is a big lecture hall, a wonderful library with all that a researcher could want, staff rooms and so on. Then there are seven or eight diagnostic floors, with amazing communications, on each floor a system of lights tells where in the building everyone is at that moment. Other lights tell which rooms have patients, which patients as yet unseen, and so on. The records are shot from floor to floor on travelling railways. I was shown the whole system, from the time the patient arrives to the time he pays his fee, but I could not possibly absorb it. The fee sheet, a separate paper, reaches the business office in advance of the patient, and has his occupation and so on, usually information from a credit house, and also a complete record of where he has been. In each department someone has put a tick in one of three squares—"Rich," "Poor," "Charge Nothing"—also an account of the time spent on him and its estimated value. About one-third of the work is unpaid, either intentionally, or charged and never collected. The highest fee the Clinic takes is 1,000 dollars, but they may charge 5,000 or even 10,000, the rest going to a charity fund.

The whole basement is a record department, with as many girls as a bank, entering, filing, indexing. There are pneumatic tubes laid underground to all the hospitals, so when a patient goes to St. Mary's all his notes are blown underground $1\frac{1}{2}$ miles in about two minutes. Finally, there is the famous slot index; each patient has a master card in which every detail is entered as a small hole in one particular place. How it works I do not know, but if you wanted to know how many women with red hair and four children had their right semilunar out in 1927, they would set switches, put all the 1927 cards in a hopper, and the right ones would be shot into a basket for you.

At 5, Dr. Will Mayo came in his car to fetch me, and took me for about an hour and a half's drive, talking the while. The whole place is his and he loves it; Charlie is a great surgeon, the playboy of the pair, but he is now sick. First there was the enormous Mayo Park given by them, with a statue of their father, and a homely Zoo scattered through the grounds and every device for children. Then two other parks, the different hospitals, convalescent homes, nurses' homes, swimming pools, schools—all his work, and nearly all of it done in the last thirty years. He said it was in about 1906 that he realised they had as much money as they wanted, and he suggested to his brother that they should pay themselves a handsome salary and put the rest into a Mayo Foundation. This has grown to about £5,000,000 and owns land and everything.

Then there is the system of Fellows, young men who come here from all over the world, only about one in twenty being accepted. They stay four years and are put through everything. The occasional brilliant one gets a job at the Clinic. The old man talked of everything, coming round at last to the troubles of to-day.

We went to his lovely house for the family dinner, a weekly event. Mrs. Balfour and Mrs. Walters are his daughters, but Balfour was not coming for a peculiar reason. He sent round the car to fetch me to his house to see Helen Keller, who had just come out of the Clinic after a gall-bladder operation, and was dining with them.

She is now, of course, middle-aged. She has a secretary, who talks to her by incredibly rapid movements of one hand in hers, and translates her reply. She can talk, and some of it is surprisingly intelligible considering she has never heard her own or anyone else's voice. Balfour sat down to the organ and played " Land of Hope and Glory " and " Londonderry Air." She sat with her right hand on the panel, waving time with her left, and apparently enjoying in some way the vibrations. She said it was like the " waves of the sea."

Dinner was a brief and quiet meal, with Walters, his wife and two boys there. Walters rushed me off to the weekly event.

First came the pathological meeting, presided over by the pathologist, Dr. Robertson, and attended by all the staff and visitors. It is supposed to be the post-mortem material of the week (they get post-mortems on 90 per cent. of their cases), but it has been modified to allow slides of everything to be got cut, and to allow a certain grouping of cases. A short history is thrown on the screen, the clinician or clinicians responsible give their comments, and the pathologist shows specimens, dissections and slides on the screen and also on the table, giving a talk, at times caustic, as he goes.

Discussion was chiefly on appendicitis and general peritonitis and on bleeding gastric ulcers. Views very much our own, except they take Hurst more seriously on hæmatemesis. Walters said " the older a patient the older his ulcer, the more likely is he to bleed to death from it and the more urgent is surgery."

This finished at about 9.30, and we then went to another room for the weekly staff meeting. Here young men present interesting cases or report research work, and older ones discuss it. By this time I was so tired that I kept dozing off next to Mayo and only just saved my face.

(*To be continued*)

A Case of Intestinal Obstruction Produced by a Gall-Stone

By T. G. Pritchard, Esq.

WHEN discussing the various causes of intestinal obstruction, most textbooks of general surgery include gall-stone as being a rare cause. Before giving a short account of such a case which was admitted during a recent " take-in," it is perhaps not unwise to give an account of what is generally considered as being a fairly typical case of intestinal obstruction produced by a gall-stone.

Typical Case.—A fat multiparous woman, age between 50 and 65 years, gives a history of having had " indigestion " with much flatulence, and a more or less constant dull pain in the epigastrium for many years. She may or may not have had biliary colic and jaundice. Recently the pain, which was diffuse, has been more severe and during the last day or so before admission into hospital she has had an intense pain in the right hypochondrium with persistent vomiting. Profuse vomiting persists—all solids and liquids taken by mouth being returned almost immediately, and the quantity of fluid vomited far exceeds the fluid intake. The vomit may at first be tinged with blood (from the fistulous track between the gall-bladder and duodenum); it later becomes bile-stained, and finally may be fæcal. The pain is now colicky in nature and situated mainly in the umbilical region. The bowels may have acted several times since the onset of the pain and vomiting, but, since the stone has become firmly impacted, there has been absolute constipation.

On examination the patient is not usually very shocked, but may appear dehydrated. There may be very slight distension of the central area of the abdomen. Tenderness and rigidity, though slight, are often more marked on the right side and very rarely the stone may be palpable through the parieties or by rectal examination. The diagnosis is not generally made until laparotomy is performed.

The case admitted on July 19th.—R. S., age 47 years, a Civil Servant, was sent to Guy's by his doctor as a case of intestinal obstruction. There was nothing relevant in his family history or history of previous illnesses; he had always been healthy, with no history of jaundice. The first sign of gastro-intestinal symptoms started in December 1937, when, after eating some mushrooms for breakfast one morning, he felt rather unwell and about mid-day had an attack of violent colicky pain in the abdomen, felt sick, and vomited. The vomiting gave him instant relief from pain. He felt rather unwell for the rest of the day, did not have further abdominal pain, but vomited once or twice during the evening. He felt perfectly well the following day but, since then, he had had an attack of indigestion, as he calls it, every three to four weeks. In each attack

(which lasted from one hour to 24 hours) he had a great deal of nausea and flatulence and occasionally abdominal pain, rather colicky in nature, but not severe. In between the attacks he was quite free from symptoms.

On Whit-Sunday evening (June 5th) he had a great deal of flatulence and nausea, which continued through the night, and on the Monday morning he began to get colicky abdominal pain which was relieved by vomiting. He vomited at least six times during the day, and towards the evening the abdominal pain became intense, subsiding only for a few minutes after vomiting. Owing to pain, vomiting and slight diarrhœa he was unable to sleep that night. The doctor who was called in on the Tuesday morning diagnosed acute gastritis and prescribed a light form of diet and a white medicine for him. Apart from an occasional mild attack of indigestion he was free from symptoms again until the evening of July 15th, when he was violently sick and had diffuse abdominal pain. The doctor was called in and gave him some medicine, but the vomiting and pain became progressively worse. On the evening of the 16th he was given an injection of morphia. The vomiting persisted and there was absolute constipation from the 15th. Enemata were given on the 17th and 18th, with no result. On the evening of the 18th he was given some pills (which were said to be violent purgatives) by his doctor and, following this, he suffered agonising pain.

When admitted to Guy's on the 19th he had not been able to retain either solids or fluids, nor had he passed a motion since the 15th. His pulse rate was 108, temperature 98.0°, respiration rate 20. In the ward he vomited about a pint of rather thick pea-soup-like material. He was a well-built man, not fat, and when admitted looked very dehydrated but not very shocked. He complained of a diffuse abdominal pain, the abdomen was rather distended, and a little tender all over, with slight guarding of the abdominal muscles on the left side. Enemata gave no result—not even flatus. A diagnosis of small intestinal obstruction was made, and the probable cause was thought to be bands following healing of abdominal tuberculosis.

Operation was performed without delay by Mr. W. G. Gill, and as soon as the abdomen was opened coils of distended gut appeared. After following the collapsed ileum from the cæcum towards the jejunum for about 3 feet the site of the obstruction was reached, and here was found a large gall-stone about 2 inces in length and $1\frac{1}{2}$ inches in transverse diameter. The distended gut above the site of obstruction was very injected, especially along its free border. The stone was removed and the gut sutured in the usual way. The structures in the region of the gall-bladder were densely matter together by adhesions so that they could not easily be identified. The patient is now progressing favourably. A straight X-ray of the gall-bladder region after the operation showed no evidence of gall-stones.

My thanks are due to Mr. E. C. Hughes (under whose care the patient was admitted) for permission to publish this case.

Renal Function

A Paper read before the Physiological Society of Guy's Hospital by K. H. Walter, Esq., and D. Stafford-Clark, Esq.

MR. CHAIRMAN and GENTLEMEN,—*Homo sapiens* is a natural meddler, and it is perhaps for this reason that the more important to his welfare a bodily process or functional organ may be, the further from his conscious control is it placed, lest by his insatiable desire to interfere, his utter inability to let well alone, he damage his own vital mechanism beyond repair.

Thus we see that the ill-educated Borough woman, who neither knows nor could understand the processes of embryology, may in her allotted span of months produce a fœtus perfectly formed and completely equipped with membranes and placenta which can compare, perhaps with advantage, to any similar effort on the part of the world's most brilliant woman embryologist. It was along these lines that Bernard Shaw was thinking when he pointed out that our very breathing goes wrong the moment we allow our conscious self to become aware of it.

What more fitting tribute then could we pay to the undeniably vital importance of the kidney as a functional organ than to realise that perhaps more than any other organ, the kidney proceeds with its task completely contemptuous of obtruding itself upon consciousness.

In fact, the layman probably has no idea at all of what it does for him beyond associating it vaguely with the occasionally inconvenient necessity for micturition or blaming it, often unjustly, for mysterious lumbar aches which could equally well be the protestations of an ill-used reproductive system.

We, as students of the human body and its vital processes, may perhaps pride ourselves upon realising rather more than the layman what the kidney does for us. But when we begin to consider how it does it we set foot upon a path whose every step is beset with difficulties, of conflicting theories and various experiments which unfortunately permit of more than one explanation. Indeed the goal of complete or relatively complete knowledge, incontrovertible fact instead of so-called "generally accepted theory," is by no means attained as yet.

First then and briefly let us dispose of the more simple question—What does the kidney do?

The kidney in man is concerned primarily with two main functions which are associated together for the sake of economy. The first is the excretion of excessive amounts of water from the body. This water would otherwise accumulate in the blood and tissues until a definitely pathological state due to actual dilution of the blood and water poisoning occurred, as has occasionally happened when a marked antidiuresis has been provoked by the injection subcutaneously of a watery extract of the posterior lobe of the pituitary gland. The second function is to aid in maintaining the normal *p*H balance in the body by the excretion of an acid or alkaline urine, while incidentally the urine excreted is made the vehicle for the riddance from the circulation of various toxic products of metabolism which have been previously rendered less harmful by chemical combination in the liver.

Now the circulation in the body is continuous, and it is therefore impossible for the blood coming to the kidney to be previously altered in composition, so that while containing all the excess of water, acid or alkali, and detoxicated by-products of metabolism, ready to be excreted by that worthy organ, it does not contain the other constituents normally present in the circulation but vital to the body, which must be retained at least in definite minimal proportions, such as glucose.

Because of this fact, the task of the kidney immediately becomes immeasurably complex, for we see that it is an organ receiving blood whose composition is of the same order as that in general circulation, while upon it rests the responsibility of removing from that blood all that the body does not need, as well as any excess of what the body may require, although in less concentration in the blood than it is when reaching the kidney. Upon it also rests the responsibility of regulating the acid-base equilibrium of the urine by definite chemical processes carried out in its substance, while finally re-admitting into the general circulation a blood relieved of unwanted constituents, but retaining substances vital to the body concentrated within definite limits.

A simple although by no means perfect analogy is that of the sheepdog, who, presented with a mixed flock, must not only separate the sheep from the goats, but also see to it that of the sheep only a definite number get past him, the extra sheep above that required amount being disposed of with the goats.

This analogy cannot, however, hint at the definite chemical mechanism for the regulation of the *p*H of the fluid environment of the tissues, such as the manufacture of definite amounts of ammonia from the urea reaching it in the blood. Nor can it pay tribute to the extraordinary ingenuity displayed by the organ in utilising the varying amounts of water available to it as a vehicle for the excretion of waste products without ever removing from the blood more than its fair share in the normal course of events.

Small wonder then that investigators of renal function have been ever tempted to credit the cells of the kidney with a kind of mysterious intelligence, a benevolent discrimination, as a basis whereby they may explain the wonder of its ways in performing with such conspicuous success the difficult and complex tasks allotted to it.

Although, as moden physiologists, we cannot subscribe to such a romantically unscientific view of a functional organ whose workings must eventually permit of a far simpler although perhaps more careful and detailed explanation, we propose to consider shortly the history of the views previously adopted to explain renal function, together with the drawbacks to those views which lead to their ultimate rejection by all but a small body of fanatical adherents. Then we would put before you the modern theory which goes as far as the explanation has been so far carried, although by no means completely proof against the arguments of its opponents or the results of their experiments, to which modern theory we have ourselves made a somewhat diffident, although apparently sound, contribution. But before we can pass on to these various theories we must be sure in our knowledge of the histology of the kidney—a knowledge which no self-respecting medical student can possibly be without, but which none the less we feel bound to describe, that our paper may not lack an attempt at completeness.

The system begins with the Malphigian body, which consists of Bowman's capsule, the blind expanded end of the renal tubule, indented for the reception of the glomerulus, held together by scanty connective tissue, and derived from a large afferent vessel from the intralobular artery, and a smaller efferent vessel. On leaving the glome-

rulus, this efferent vessel does not pass back immediately into the intralobular vein, but divides again later into a second set of capillaries running between the tubules, called the intertubular capillaries, from which efferent vessels rejoin the intralobular vein.

Bowman's capsule is formed of a basement membrane lined by a single layer of flattened epithelial cells, and thus between the glomerulus and the outer layer there is a space lined by a continuous layer of flattened cells; this cavity may vary in size according to the state of secretion, while in the fœtus the lining cells are polyhedral or columnar.

The tubule itself is composed at first of a neck leading from the capsule, followed by the first convoluted tubule which eventually passes into a spiral tubule, running towards the medulla of the kidney.

We than have the descending limb of the loop of Henle, which is histologically different from the rest of the tubule, and, as we hope to show, probably functionally different as well. This is followed by the loop of Henle, which leads into the ascending limb, from which the second convoluted tubule finally joins a collecting tubule, subsequently widening out to become one of the ducts of Bellini, opening out on to the surface of a papilla.

The structure of the renal tubules, apart from the descending limb, consists of a type of epithelium common to all. The cells are columnar and dovetail into each other on their lateral aspects, each has a serrated border next to the lumen of the tube, of granular substance, its nucleus being spherical and situated at the centre of the cell.

The descending limb of Henle's loop, however, contains epithelium resembling that found in Bowman's capsule, namely, flat clear plates with oval nuclei alternating on opposite surfaces of the tube so that the lumen remains fairly constant.

The importance of this necessarily trying histological dissertation is the behaviour of the blood vessels, and the strikingly unique histology of the descending limb of the loop of Henle. Having refreshed our minds on these two points, we have earned the right to return to the more enjoyable aspects of the subject.

The first of the now discredited theories which we shall discuss briefly was that of Bowman and Heidenhain, the former being the first man to investigate thoroughly the histological structure of the capsule that now bears his name and contains the glomerulus. This theory was the simple one that the blood, in passing through the glomerular capillaries, lost a volume of water by filtration approximately equal to the volume of urine subsequently formed from it. This water then passed along the tubules, while the tubule cells secreted into it the various constituents of the urine as they would appear when it was collected in the bladder, the cells being supplied themselves by the already filtered blood coming from the glomerulus in the way we have already seen from our consideration of the histology of the kidney.

This theory, the filtration and secretion theory as it was called, they supported by an experiment in which they caused a general lowering of blood pressure by section of the spinal cord in the rabbit, after injecting a dye into the circulation. This lowering of blood pressure caused a diminution in the rate of urine formed in the kidney, and on killing the animal, removing and staining sections of the kidney, they were able to demonstrate the presence of dye in the brush work cells of the tubule, and in the lumen of tubule. The concentration increased as the distance down the tubule increased, but no dye could be seen in the glomerulus.

This experimental evidence was shaken, however, when an explanation, on the grounds that the dye was actually present in the glomerus, but so diluted that its presence was not visible, was advanced, and further experiments along similar lines showed that certain dyes could, in fact, be demonstrated quite definitely to appear in the glomerulus. Although this virtually killed the filtration secretion theory, we have by no means heard the last of secretion as a theory, which we intend to discuss in connection with two other highly interesting experiments later on.

As an alternative theory, Ludwig postulated that in fact the passage of blood through the glomerular capillaries resulted in a complete filtration of all the crystalloid content of the blood, together with the total volume of water present, minus the volume needed by the colloids to maintain their suspension in the blood left behind to leave the glomerulus and pass into the second capillary system round the tubules. This glomerular filtrate, in which the constituents would be in almost identical states of concentration to those found in the blood, Ludwig supposed to be converted during its passage down the tubules, into urine as found in the bladder, by a process of reabsorption carried on by the tubule cells. These cells, he supposed, so adjusted the amount and nature of the reabsorbed material as to leave the ultimate filtrate containing just those substances in such concentrations as were found to compose the urine passed.

This theory, differing in every essential from that of Bowman and Heidenhain, demands a belief in an enormous total filtration rate for the

kidney. Modern experiments, coupled with enthusiastic assumptions based on our knowledge of other filtering membranes such as the fowl's rectum, which at one time intrigued physiological investigators, have suggested that such a filtration rate is not only possible for the kidney but could, in fact, be maintained by constantly varying shifts of glomeruli involving no more than 10 per cent. of the total number of glomeruli working at any one time.

Ludwig himself, with an attitude to the entire problem which those of us who value repose might well envy, produced no experimental evidence worth mentioning in support of his views. He might justly be imagined to have propounded them originally from the depths of a cavernous armchair after an excellent dinner, the coffee following it stimulating his scientific excursions into the realms of speculation. Such unsupported theories, especially when as near the truth as, in the light of our latest ideas, this one seems to have been, appear to us to be none the less worthy because the pangs of labour needed to produce them were not excessive.

But, as some of us can hardly have failed to notice, after excessive consumption of fluids, the urine excreted is apt to be very dilute, and, in fact, may occasionally be more dilute than blood, a condition which cannot be accounted for by Ludwig's theory since he presumes that the function of the reabsorption by the tubules is to concentrate the urine.

The enormous concentration in the urine of such substances as urea and creatinine, compared to their concentrations in the blood, which demands such a high filtration rate if Ludwig's theory is to be tenable, can be explained by the previously mentioned experiments and enthusiastic assumptions, under Ludwig's theory, but the urine more dilute than blood was a hurdle which even the armchair expert could not take in his stride.

We can now consider a theory which can explain all the difficulties so far encountered—the theory of Cushny, which undoubtedly appeals to all on the grounds of reason and beautiful simplicity.

Cushny took Ludwig's theory of ultra-filtration via the glomerulus and then suggested that the filtrate in the tubules, of the same order of concentrations as the blood from which it had come, became altered during its passage down the tubule by the reabsorption of the tubule cells. He believed that these cells invariably reabsorbed a solution of concentration and constituents of a fixed nature, the whole solution of fixed composition thus absorbed being very like the normal Ringer-Locke solution well known to physiologists of his day.

This highly ingenious theory, simple and yet apparently supplying an explanation that fitted with all the facts known at the time from experiment and observation, met with deserved popularity. If we apply it to the problem of the urine more dilute than blood we see for ourselves how neatly it circumnavigated all previous hidden rocks to triumph by its splendour.

Suppose the blood to contain an unduly high percentage of water plus the normal constituents in normal amounts, as would occur after particularly industrious drinking. We can readily follow the blood through the glomeruli, which remove almost all this vast excess of water, which in the tubules despite its excessive volume contains no more than the normal crystalloid content. After the tubule cells have removed by reabsorption their own fluid of fixed composition, containing, of course, water in proportions identical to the proportions when the fixed Ringer-Locke is removed from a far less imposing volume of filtrate, we see that we are left with a urine not only present in greater bulk than normal, but also more dilue than the blood which has received back its fixed fluid containing definite proportions of glucose, sodium bicarbonate and chlorides.

The application of this eminently acceptable theory raised the question of a renal threshold, which was assumed to be quite constant for any particular substance, but varying for different substances, and not existing at all for one class, which were grouped under the heading of "no threshold bodies." This title thus implied that under no circumstances would they be retained even in part by the kidney when arriving there in the blood stream. Thus Cushny expected to find his no-threshold bodies appearing in the urine at least in equal concentrations to those found in the blood, normally, of course, being far more concentrated; since while water was reabsorbed as part of the fluid of fixed composition, never could those pariahs, those outcasts, those no-threshold bodies, regain their more desirable fellows, such as glucose, in the circulation. They were not needed to form part of the Ringer-Locke solution reabsorbed, and thus once past the glomerulus their return was for ever barred.

It is this way of regarding the situation that opens a new field of discussion of renal function. But first would we attempt to advance what we venture to hope is perhaps a novel viewpoint to some of our readers with regard to the tubules of the kidney.

(*To be continued.*)

Correspondence

The Wellcome Museum of Medical Science

To the Editor of the GAZETTE

SIR,—I still come across a certain number of senior students who express regret that they did not discover the above Museum at an earlier stage in their career. They are even inclined, sometimes, to be resentful and blame me for the oversight. Lest I be culpable in this respect, may I once again—after an interval of two years—state what this Museum has to offer to your students ?

1. It presents a graphic picture of clinical medicine in all its branches. By means of specimens, models, photographs and drawings it summarizes the ætiology, pathology, symptomatology, treatment and prevention of each disease. It therefore differs fundamentally from the ordinary pathological museum.

2. It moves forward. As far as possible, each section is kept up to date. Of special value are the classified cuttings which are found in every section showing the latest work on the disease under consideration.

3. It deals with most diseases met with in this country and also abroad.

4. It is of special value to senior students and men engaged in post-graduate studies. It presents a teaching system which integrates the various subjects included in the medical curriculum. It helps the student to take a broad view of medicine.

5. A short visit will certainly prove of interest, and will quickly enable the student to judge for himself whether the Museum is likely to be of use to him.

Yours, etc.,
S. H. DAUKES, M.D.,
Director.

183-193, Euston Road,
N.W.1.

Sport

List of Rugby Fixtures, 1st XV, 1938-39

1938	*Opponents*	*Ground*
Sept. 17	Catford Bridge	Home
„ 24	Old Paulines	Home
Oct. 1	United Services (Portsmouth)	Home
„ 8	Aberavon	Aberavon
„ 15	Coventry	Home
„ 22	Harlequins	Home
„ 29	Plymouth Albion	Plymouth
Nov. 2	Cambridge University	Home
„ 5	Old Blues	Home
„ 9	London University	Motspur Park
„ 12	Birkenhead Park	Home
„ 19	Rosslyn Park	Richmond
„ 26	Gloucester	Home
Dec. 3	Richmond	Home
„ 10	The Army	Home
„ 17	Catford Bridge	Home
„ 24	London Irish	Sunbury
„ 31	Old Millhillians	Headstone Lane

1939	*Opponents*	*Ground*
Jan. 7	Old Merchant Taylors	Croxley Green
„ 14	Birkenhead Park	Birkenhead
„ 21	Old Leysians (morning)	Wandsworth
	(*International* v. *Wales*—*Twickenham*)	
„ 25	Cambridge University	Cambridge
„ 28	Old Whitgiftians	Home
Feb. 4	Coventry	Coventry
„ 8	Royal Air Force	Home
„ 11	(*International* v. *Ireland*—*Twickenham*)	
„ 18	London Scottish	Richmond
„ 25	Devonport Services	Home
Mar. 4	Aberavon	Home
„ 11	Bedford	Bedford
„ 18	Old Alleynians	Home
	(*International* v. *Scotland*—*Murrayfield*)	
„ 25	Gloucester	Gloucester
April 1	Old Cranleighans	Home

Hospital Information, etc.

Notice

GUY'S HOSPITAL MEDICAL SCHOOL
PRIMARY FELLOWSHIP COURSE

A Combined Course in Advanced Anatomy and in Advanced Physiology will be held in common with St. Bartholomew's Hospital Medical College and St. Thomas's Hospital Medical School for the November, 1938, Examination, to which only Students and Post-graduates of the Schools concerned will be admitted.

The Classes will be as follows :—

St. Thomas's Hospital.—September 19th to October 7th inclusive, on Mondays, Wednesdays

and Fridays. Anatomy, 2 p.m. to 3.30 p.m.; Physiology, 3.30 p.m. to 4.30 p.m.

Guy's Hospital.—October 10th to October 28th inclusive, on Mondays, Wednesdays and Fridays. Anatomy, 2 p.m. to 3.30 p.m.; Physiology, 3.30 p.m. to 4.30 p.m.

St. Bartholomew's Hospital.—October 31st to November 18th inclusive, on Mondays, Wednesdays and Fridays. Anatomy, 2 p.m. to 3.30 p.m.; Physiology, 3.30 p.m. to 4.30 p.m.

Guy's men who wish to join the Course should give in their names at the Medical School Office as soon as possible.

T. J. EVANS,
Dean.

Pass List

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.
August, 1938.

Surgery.

*I. J. Mathias — C. R. Morgan

Midwifery.

J. V. Braithwaite — N. W. R. Lucas
J. A. L. Leeming

* Has now completed the examination.

UNIVERSITY OF LONDON.
FIRST EXAMINATION FOR MEDICAL DEGREES.
July, 1938.

T. M. Ball
T. D. Birtwhistle
R. A. Bush
K. R. J. Coates
G. M. Coupland
J. T. Doyle
F. M. Dunn
R. D. Emslie
G. M. Evans
J. M. Fabricius
C. M. F. Fiducia
D. N. Fuller
W. Haigh
I. D. Henderson
W. H. Humphreys
R. J. Hunter
J. H. H. Knight
R. C. Lawrence
N. A. Lee
I. S. MacLeod
P. E. Mars
H. C. Martin
D. R. I. Mason
H. C. Miller
T. A. Morris
H. C. Mukerji
D. H. Norman
A. J. P. Oldham
H. W. Palowkar
L. F. G. Pritchard
T. L. Reeves
J. W. Robb
A. J. Shillitoe
G. R. M. Sichel
R. S. Smith
J. M. Thomas
C. C. Vidot
E. A. Williams
O. H. E. Williams
B. H. Wilshere
R. M. Woodside

M.D. EXAMINATION.
July, 1938.

BRANCH I.
Medicine.

J. R. Forbes — J. B. Robinson
N. M. Jacoby — P. C. Wickremesinghe

BRANCH II.
Pathology.
I. E. Cathie.

BRANCH IV.
Midwifery and Diseases of Women.
E. D. Y. Grasby.

BRANCH V.
Hygiene.
F. W. Gilbert.

Papers by Guy's Men

Payne, W. W. Proferin, a new diabetic food. *Proc. Roy. Soc. Med.*, 1938, xxxi, 1213 (Sect. Therap. and Pharmacol.).

Ellis, R. W. B. Lymphosarcoma. *Ibid.*, 1162 (Sect. Study Dis. Childr.).

Forman, Louis. Lipophagous granuloma (Telford). *Ibid.*, 1177 (Sect. Dermatol.).

Attwater, H. L. The importance of mild chronic prostatitis. *Med. Pr.*, 1938, cxcvii, 131.

Trail, R. R. The diagnosis and treatment of empyema. *Post-Grad. Med. J.*, 1938, xiv, 251.

Neustatter, W. Lindesay. Important symptoms in relation to diagnosis and treatment of mental disorder. *Ibid.*, 257.

Pilbeam, J. F. Dental treatment of tuberculous patients. *Dent. Rec.*, 1938, lviii, 447.

Ogilvie, W. H. The approach to gastric surgery; ulcer of the stomach. *Lancet*, 1938, ii, 295.

Erskine, D., and Johnson, A. G. Lumbar puncture in out-patients. *Ibid.*, 371.

Marston, Archibald D. The administration of anæsthetics for dental operations. *Brit. Dent. J.*, 1938, lxv, 156.

Rowlett, A. E. The Austrian dental profession and the "Auschluss." *Ibid.*, 161.

Fry, W. Kelsey. Fractures of the mandible and their treatment. *Med. Pr.*, 1938, cxcvii, 108.

Punch, A. Lisle. Undulant fever treated with prontosil. *Lancet*, 1938, ii, 429.

Payne, W. W. Vomiting in diabetic children. *Lancet*, 1938, i, 195.

Northfield, D. W. C. Some observations on headache. *Brain*, 1938, lxi, 133.

Changes of Address

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Birth

FAIRFAX.—On 28th August, 1938, to Hildegard, wife of Donald Fairfax—a daughter.

EDS. { C.H.E. / W.E.Y.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

IT is not untrue to say that a sense of impending dissolution has descended upon the Hospital, and fantastic though it may sound, international affairs make the writing of " Passim " as perplexing and troublesome a job as we have yet undertaken. However, it is clearly incumbent upon us to recognise the advent of problems greater than any yet on which we have felt it our duty to comment. But the astonishing rapidity with which international events have taken to moving makes it an almost impossible task to produce any sensible contribution to current thought in a fortnightly magazine. At the time of writing tension is high and rising, the outlook completely obscure, and we have no private wire to Whitehall.

Our minds during the last week have dwelt almost exclusively on thoughts of the latest crisis in Europe, and we have all wondered what ultimate effect it would have upon us.

CENSORED

CENSORED

last week we were faced with the prospect of another war, and one in which we were probably to take an active interest. None of us wanted war and wondered whether a peaceful conciliation could be arrived at, and indeed if it were possible whether it would, taking a long view, be the best solution to the problem. To the untutored student of international affairs it would seem that the nations of Europe cannot continue to watch the German annexation of land without raising a finger; they cannot allow unhindered the furtherance of the Nazi ambition for supremacy on the Continent. To prevent this shifting of the balance of power will sooner or later mean war, and much as we detest the thought of bloodshed it might be that suppression sooner would be less costly that suppression later. In fact, the peace at any price might be in the long run a fallacious slogan. We hurry to assure the reader that we do not want war, nor do we think it desirable, but we do wonder whether peace at a price at the moment will necessarily insure us against war in the near future. If conciliation will give us this assurance, then all well and good, but let us remember the not altogether fantastic theory that war in Europe is inevitable in the near future and let us think ahead and not live only for to-day.

CENSORED

IT is now common knowledge that plans have been made and others are in the making for the conversion of Guy's to meet the demands of a national emergency. Such information as we possess we are not in a position to disclose. We may point out, however, that active preparations against air attack are in process throughout hospitals in London and the provinces. The extensive A.R.P. propaganda has made us all conscious of the possibility and likelihood of air-raids on London and other large towns in time of war, but it has done little else for the large majority of people than conjure up in their minds vague visions of clouds of unknown gas. We feel quite certain that only an extremely small number (if any at all of us here) have any concrete idea whatsoever (except concrete) of the problems that are to be tackled in the preparation of anti-air-raid measures.

It is our belief that the time has come for us to make ourselves aware, if only in a modest way, of some of the things that we might have to face. In view of the circumstances we have made a hurried survey of A.R.P. literature—not only of Government publications but also of outside observations. What strikes us as being of the utmost importance is that while much the larger part of the Government literature is devoted to gas, its ætiology, pathology, treatment, prognosis and prevention, other literature and information derived from unofficial but usually reliable sources are most insistent on the fact that gas as an instrument of attack is of little value, practically obsolete and very unlikely to be used to any serious extent. This is not in itself reassuring news, since it makes us realise that, ghastly as we thought the use of gas to be, modern methods are ghastlier still. For the benefit of those who are interested, the two most important gases, mustard gas and Lewisite, can be detected by their smell, the former resembling garlic or onions, the latter geraniums; we regret that this information will be of little value to those accustomed to live in the College.

The more recently developed methods of air attack on open towns—the so-called technique of silent approach—is almost certain to be used, if for no other reason than that other ways of getting through to London are all but impossible, and even if aircraft did succeed in gaining their objective, the length of warning which the population would have would render an attack physically harmless and morally almost laughable in its effect.

The technique of silent approach combined with the use of high explosive has recently been applied in Spain on human beings, and in Guy's on starlings, and the results, flippant though our comparison may seem, are readily and, we believe, genuinely comparable. The physiological and pathological effects of sudden and tremendous noise are not perfectly understood, but it is at least obvious that the effect is profound. It is a fact of some significance that two brief attacks on successive nights with a few unexpected tuppenny squibs should have so effectively broken into the natural habits and traditions of our local population of starlings as to have brought about an immediate and entire evacuation. In Barcelona, it is said, three days of silent approach bombardment succeeded in producing an almost complete paralysis of the city's activities and, had the system been pursued, would, without any doubt, have rapidly resulted in surrender. It is not known why no further attacks were made along the same lines, but it seems possible that it was in the nature of an experiment which, having been proved entirely successful, it was not thought necessary to continue.

Damage to persons and property in these raids was tremendous, but relatively insignificant compared with the damage to morale, which was far in excess of any previous air-raids. Analyses by competent people have shown that there are three factors in this form of bombardment which rapidly produce a disintegration of the faculties, namely suspense, stunning noise and physical shock if the person is near enough. The most valuable instruction in air-raid precautions must, therefore, be to teach people how best to combat these factors and not how to seal off their rooms against non-existent gases, a pastime which itself may be not without danger.

We have come across one suggestion that we consider worth giving in detail, and that is the establishment of an adequate blood transfusion service. It is obvious that at a time when hundreds, if not thousands, are pouring in severely injured there will be no opportunity to scour London for donors. Presumably arrangements of some sort have already been made, but we do not think that the supply will, at those times, anything like keep up with the demand. We suggest, therefore, that the Hospital organise its own transfusion service among those who are compelled or are willing to remain on the premises. It will give many people who have no special duties an important and acceptable occupation during times of suspense.

The memorable advice of Herr Kundt will, we believe, be needed by us more than by anyone: "Let your nerves be as of steel."

We will be glad to inform anyone who may care to apply to us of the literature to which we have alluded.

ONCE or twice during the past month or two we have had the opportunity to publish accounts of interesting cases in the wards at this Hospital, the authors being either house officers or students under whose care the patient has been. We believe that the writing and publication of the details of diagnosis and treatment is of great value and interest both to the author and the reader. We feel that you would all appreciate more of these articles, and therefore extend an invitation to all to send in case histories of any patient under their care that they think would make interesting matter for the *Gazette*.

THE Prize Distribution and Opening Address will be held this year on Friday, October 7th, in the Medical School. We are lucky in having Sir Henry Hallett Dale, C.B.E., F.R.S., M.D., to give the address on "The Future of Medicine."

Hospital Appointments

DENTAL SCHOOL

THE following appointments and reappointments have been made by the School Council; duties to commence on October 1st, 1938 :—

Half-time Assistant to the Director of the Conservation Room—
Mr. R. O. Holland, appointed for the period 1st September, 1938, to 30th September, 1939.

Half-time Assistant to the Director of the Prosthetic Laboratory—
Mr. H. C. Davis, reappointed for one year.

Administrative Dental Officer—
Mr. G. S. Loader, reappointed for one year.

Registrars in the Dental Department for Children—
Mr. K. E. Pringle, reappointed for one year.
Mr. H. Richards, reappointed for one year.

Demonstrators of Operative Dental Surgery, Morning Attendance—
Mr. C. S. Pitt, reappointed for one year.
Mr. W. A. Vale, reappointed for one year.
Mr. R. F. Pusey, appointed for one year.
Mr. A. E. Parrott, appointed for one year.
Mr. G. J. Parfitt, appointed for one year.
Mr. F. L. Ingram, appointed for one year.

Demonstrators of Operative Dental Surgery, Afternoon Attendance—
Mr. H. H. Kenshole, reappointed for one year.
Mr. A. R. F. Thompson, reappointed for one year.

Demonstrators of Dental Prosthetics—
Mr. G. H. Ellingham, reappointed for one year.
Mr. J. W. Mansie, reappointed for one year.
Mr. R. J. Wheatley, reappointed for one year.
Mr. C. S. Henderson, appointed for one year.

Assistant Bacteriologist, Dental—
Mr. C. W. T. Shuttleworth, reappointed for one year.

Demonstrator of Dental Bacteriology—
Mr. C. S. Henderson, reappointed for one year.

Demonstrator of Dental Histology—
Mr. J. W. Mansie, reappointed for one year.

Assistant Curator of the Dental Section of the Gordon Museum—
Mr. A. R. F. Thompson, reappointed for one year.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Thursday, October 14th

CALLED this morning :—"It is half after six and the temperature is 18 degrees." That is the worst here; one has to dress as lightly as possible for the theatres, and face this cold outside. Gray called for me at 7.50 and took me on his round of cases. A most delightful man, whose manner with patients is perfect, and comes from real sympathy. I was delighted to hear him turn down an operation on a duodenal ulcer in a man of 37 that others were trying to make him do. Nothing remarkable on the round, except the number of inoperable carcinomas of the stomach. He says deep X-ray, by repeated small dose method of Coutard, is very good.

Went to Colonial to watch *Walters*.

1. Exploring gall bladder and common duct. There was a clear shadow in X-ray, but biliary system appeared normal. Dilated ampulla of Vater with graduated spoons; an excellent idea, as they would bring out stones. Drained duct with T-tube. Advantage over catheter that it stays in, and allows subsequent visualisation of duct with dyes, for patentcy or stones. (Fig. 56.)

2. Doctor's wife with stricture of common duct.

Old mid-rectus incision; he now makes oblique rectus cutting incision from below Xiphisternum to lower end of former—a bloodthirsty approach. Says increased coagulation time is most reliable index of impaired liver function.

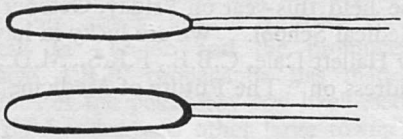

Fig. 56.

Has had about 33 common duct strictures; good results in about 50 per cent. Best results follow choledocho-duodenostomy, and hetpato-dochoduodenostomy.

This case was a dreadful mess of scar tissue, with bad liver and pus in common bile duct. Could only sew catheter in duct. Used some Italian powder of brains and lung (? Stryphon) as styptic.

3. Ventral hernia—nothing special.

4. Watched G. J. Thompson do two per-urethral prostates. He uses a cold punch and does a very thorough operation. Occasional sepsis; usually divides vas first, supra-pubic operation practically dead.

5. *Walters.*—Duodenal ulcer. The former oblique rectus cutting incision—no advantage at all that I could see. Exposes a large posterior ulcer upper part of bend, opens mesocolon after pushing stomach down on a swab, and getting his two assistants to spreadeagle colon over it. Opening from ¾-inch from greater curve to half-way across, and rather obliquely; jejunum rather longish loop, and opening one-third way round from inner mesenteric border (right or medial). (Fig. 57.)

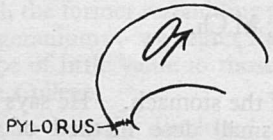

Fig. 57.

Does his anastomosis in three layers, and picks up all vessels in submucous layer of stomach on greater curvature side before cutting mucosa, and ligatures them. Loosens clamp before doing return layer. He thinks he has had more recurrence after Billroth I. for duodenal than after gastro-jejunostomy.

6. Cholecyst-gastrostomy for inoperable cancer. Does anastomosis in three layers. At end brings tail of omentum right round stoma behind, and picks it up in third layer stitches. (Fig. 58.)

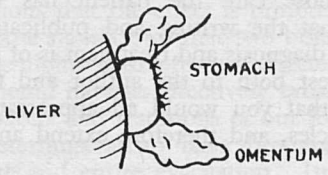

Fig. 58.

Man with pain and epigastric tumour. The same incision. Tumour was a really enormous gall bladder, yet it contained yellow bile like urine. There was another posterior duodenal ulcer, for which he did a similar gastro-jejunostomy. He went back to biliary apparatus and could find no stone or malignancy, and only a slightly dilated common bile duct. Decided obstruction was due to œdema round duodenal ulcer, and removed the gall bladder.

At the Colonial they have the bull's-eye type of lamp, as at Johns Hopkins, but it swings on a

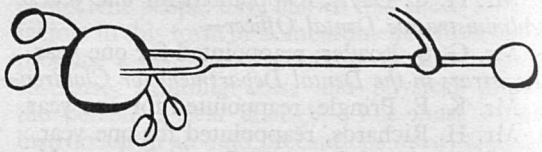

Fig. 59.

weighted arm, and is instantly adjustable at the far end by a nurse turning a little knob. Good. *Makers*—Operay Multibeam, Operay Laboratories, Madison, Wisconsin. (Fig. 59.)

After lunch, spent the afternoon at the research laboratories with Mann. Says they are getting results with slice transplants of adrenals by putting glands of new-born into de-adrenalised animals of some species. Douglas was there, asked him, Canadian research man and his wife to dinner at the Kahler.

Friday, October 15th

The fullest day ever. Woke automatically at 6 a.m., and after breakfast walked through the frost and sunshine to St. Mary's, getting there at 8 a.m. There was the most astonishing list of operations, as follows :—

Room VII. Dr. S. W. Harrington.—Chronic cholecystitis with stones. Cholecystectomy.

Carcinoma right breast. Radical amputation.

Adenomatous hypertrophy right breast. Removal.

Skin recurrence carcinoma breast. Excise. Intravenous anæsthesia.

Room VIII. Dr. S. W. Harrington.—Left hemihypertrophy with masses in left breast. Removal tumours ? plastic.

Carcinoma right breast. Radical amputation.

Chronic cystic mastitis. Excise.

Room III. Dr. W. Walters.—Chronic cholecystitis. Cholecystectomy.

Gastro-jejunal ulcer. Explore. Gastric resection.

Left solitary kidney. Hydronephrosis. Renal calculi. Left pelvilithotomy. Plastic. Fluoroscopic.

Room IV. Dr. W. Walters.—Cholecystitis with stones. Cholecystectomy.

Gall stones. Cholecystectomy.

Common duct stone. Explore.

Room I. Dr. C. F. Dixon.—Menorrhagia. Metrorrhagia. Examine under anæsthetic. D. and C.

Post-operative recto-vaginal fistula. Repair.

Colostomy. Closure.

Room II. Dr. C. F. Dixon.—Perforating carcinoma transverse colon. Extraperitoneal resection.

Perforating carcinoma sigmoid. Colostomy.

Colostomy. Posterior resection.

Room V. Dr. J. T. Priestley.—Chronic cholecystitis. Explore gall bladder.

Gastric ulcer. Excise.

Left hydronephrosis. Pyonephrosis. Left nephrectomy.

Room VI. Dr. J. T. Priestley.—Cholelithiasis. Cholecystitis. Cholecystectomy.

Endometriosis with dysmenorrhœa. Dilatation and curettage. Radium.

Room X. Dr. A. W. Adson.—Radiculitis of third, fourth, fifth sacral right. Subarachnoid alcohol injection.

Spinal cord lesion. Laminectomy.

Essential hypertension. Right extensive sympathectomy.

Room IX. Dr. J. G. Love. Spinal cord tumour. Laminectomy.

Left cerebello pontine angle tumour. Bilateral cerebellar craniotomy.

Amphitheatre. Dr. J. S. Lundy.—Regional anæsthesia and blood transfusion.

It is quite obvious that no place in the world could touch it, but Friday is the peak even here. Patients tend to arrive at the week-end, trickle through investigation departments during the first part of the week, and arrive at operation towards the end. Fortunately Balfour has been Fairy Godfather, and is chasing round after or for me all day. Visitors fall into sheep and goats. You are automatically a goat unless rescued by someone like Balfour; you shoot up to Floor 6, that above the theatres, where you are registered, given a short white coat and a mask, and turned into a long corridor. In this is a permanent display of instruction demonstrations (X-rays and so on) and notice boards with a coloured light to show where an operation is starting or in progress in any particular theatre. As all are private patients and most of the anæsthetics spinal, you are not supposed to go in till the operation has started, or stay while the dressings are being done. Doors from this corridor lead into galleries in each theatre. The whole arrangement is admirable, the only things against it being the crowd and distance, and pure snobbery. The gallery is full of earnest old dears, who do not look as if they had ever operated, but who take it tremendously seriously.

If you are privileged you stop on Floor 5, get a long cloak without sleeves, are introduced to the surgeons, and stand on blocks just behind him. To-day I was specially favoured, and had a series of messages telling me when an important step was due in any theatre, so that I covered an astonishing amount of ground.

1. *Adson.*—Doing an intrathecal injection of alcohol for pain (see notes at Cleveland). He says these injections are wonderful and have superseded antero-lateral cord section. He injects m.xiii, never more than m.xv. Has alcohol in 1 c.c. ampoules (95 to 100 per cent.) so that he cannot use too much. Alcohol affects non-medullated or thinly medullated fibres—in practice pain fibres. Patients first get a sharp pain passing on to a sensation of warmth; he injects two or three minims till pain is felt, then the rest. Often curves the spine, to bring the required roots highest. Here he wanted S.3, 4, 5, and as he was injecting between L. 3 and 4, he had the table tilted Trendelenberg. The patient responded fine.

2. *Walters* was doing a gall bladder—a very difficult one with a non-mobilising liver. They never use a bridge, but always have two assistants retracting. When in great difficulty he works from fundus down; not this time. He says only indication for opening common duct is its enlargement. He has never seen a stone in a duct that was not enlarged (normal—a goose quill).

(The technique of all these fellows is extraordinarily similar—no real individual departures. They are sound rather than brilliant, steady rather than fast, careful, but not with the very slow and rather aggressive hæmostasis of the Halsted school. They have a little oozing possibly, but no real bleeding, and, in contrast to Halstedians, they tie as they go, and have a tidy field. They are very calm, very certain, very thorough, and one cannot

possibly imagine anything going wrong at a Mayo Clinic operation, or any man getting into real difficulty; the kidney X-ray the other day illustrates how they forestall them. They have a very simple set of instruments. For some reason they will not use right-angle (Moynihan) gall-bladder clamps, and it seems to me they make work and tying of the cystic duct more difficult. I cannot quite find the reason, except that they seem to feel that with an open curve you are more likely to pick up cleanly and not include unwanted tissue. They quote Charlie Mayo: "Always use straight forceps; then you know where the point is."

They generally use Metaphen for the skin and methiolate (?) in the tissues.)

3. *Dixon.* — Carcinoma of transverse colon. Spinal. Trendelenberg position. Growth was adherent to abdominal wall, but liver was clear. He turned back anterior rectus sheath, and cut out a large piece of rectus muscle and peritoneum on the growth. "If I have cancer I want a man to operate on me who has plenty of nerve and not much sense." Clamps across colon distal to growth with Peyer, and cuts with cautery; trims flush, covers with gauze and leaves clamp on. Goes straight across transverse mesocolon and omentum, cutting between clamps, tying as he goes. Cuts other end of colon same way. (They waste an awful lot of catgut, usually tying each knot with a long bit and throwing the other away.) Then puts a long Peyer crusher across stomach, and again cuts with cautery; specimen free. Running stitch back and fro just close to clamp, but not over blade. Pulls this tight as clamp is removed, and cuts off crushed edges. Invaginated with Lembert.

Transfers two ends of transverse colon to Rankin three-bladed clamp, and leaves this pretty flush with surface near top end of incision, which was sutured with some difficulty.

The Rankin clamp is left to fall off, which it does after about six days. To relieve tension he burns a round hole in the proximal loop just next to the clamp, next day, with a button electrode, a hole about a centimetre in diameter. If distension he puts in a catheter through this. He crushes the spur in about ten days, and repairs later.

A good job, difficult, done carefully and courageously.

4. *Priestley* (one of the young men) doing a small gastric ulcer on lesser curve. The patient had been through medical service; chief reason for operating that he was fifty-one and a labourer. Ties vessels on lesser curve, and does a limited excision, sewing up as he goes and then inverting. Does a posterior gastro-jejunostomy just proximal to the excised site. Uses a mid-line incision.

5. *Love* (another young man, on the neurosurgical unit). Laminectomy. An extra dural lymphoid tumour. Says a very rare condition of which this is their third. Resembles Hodgkin, but is not widely in lymphatic tissue elsewhere. This was a napkin ring of dark red round the dura, about an inch up and down and causing complete block. He set out to excise dura and all. Said it was very difficult to get all away, but one case was still well after two years.

6. *Walters.* Gastrectomy for cancer. Does an operation very like mine, but I did not think he went so high, or removed the omentum so completely from the colon. Did a three-layer anastomosis, the outer of silk interrupted. Proximal jejunum to lesser curve. Does not close lesser curve at all, but sews up the raw area where the left gastrics have been tied. Sews transverse mesocolon very carefully to stomach. Finished by removing a gall bladder full of stones.

I did not see duodenum closed, but he does this with running mattress over a clamp.

7. *Adson.*—Had just removed a neurofibroma from spinal cord of a child, springing from posterior root of L.1 level and causing complete paraplegia. Says they form about 25 per cent. of his spinal tumours. This girl has pigment blotches like von Recklinghausen, so he expects she will get neurofibromata elsewhere.

I asked Adson about prolapsed intravertebral discs. He says one must expect them in any chronic sciatica that fails to get well by thorough ordinary treatment. There is rarely any sensory loss. They usually affect one root (anterior), usually 4, but may be 5, so that tendo Achilles jerk is apt to be lost. There is a Kernig's sign on that side. Puncture shows excess of protein. Injection of 20 c.c. saline into extradural space causes rise in the intraspinal pressure as measured by needle in lumbar space (reversed Queckensted). In prolapsed disc, there is no rise, but severe pain. There ought to be a history of trauma. Lipiodol settles diagnosis, giving the sharply marked defect of extradural pressure.

I asked his criteria for hypertension operations. He said patient should be under forty, must have normal renal tests and a sound heart. Sodium amytal 3 gr. every three hours up to nine hours should bring blood pressure to normal. Putting him to sleep for fifteen minutes with sodium pentothal should also bring him to normal.

8. *Adson* then did a hypertension case.

History.—Woman aged 48. Blood pressure $\frac{200}{160}$, complaining of headaches. Had four pregnancies,

1922 to 1927, terminating in toxæmia and abortion. Known hypertension four to six years. Headaches, vertigo, vomiting, constant state of nervous tension.

Diagnosis.—Advanced grade III hypertension.

Eyes.—Retinal arteries narrow, sclerosed, hæmorrhages, exudates.

Urine.—Albumin 1. Blood urea 30.

Tests.—

1. Cold—standing	200/160	—	270/180
lying	180/122	—	268/170
2. Amytal	178/108	—	140/110
3. Sodium pentothal	190/120	—	140/100
4. Sodium nitrate	112/90		

Adson said this case was chosen by colleagues, probably in response to entreaty. He considered it unsuitable, because of (1) age, (2) renal history.

Operation. — Position left lateral. Incision ————/ (hockey stick) along erector spinæ border from XI rib to iliac crest and above crest. Divides lumbo-dorsal fascia, using diathermy to bleeders. Resects XIIth rib and, working along quadratus edge with knife, opens space, and ties XIIth artery and vein, leaving nerve. Working up along quadratus, peels nerve back, and nicks bands, freeing diaphragm up a bit without wounding pleura. Cuts Gerota's fascia. Retracts kidney, fat and all, with curved retractors, with lights on the end. This is the difficult step, needing good retractors, powerful patient assistants and exact placing of pads. Finds great splanchnic of diaphragm. Silver clip above, cuts and holds lower end in ochsner. Pulls and brings part of semilunar ganglion into view. Coagulates a line

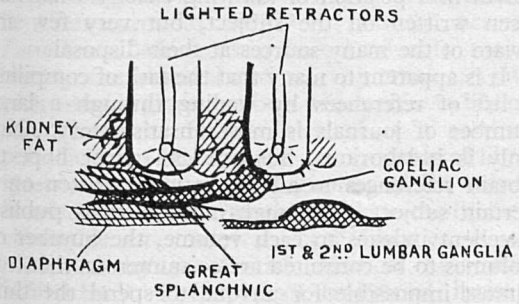

Fig. 60.

across this with forceps touched with electrode, and cuts with scissors. (Fig. 60.)

Then finds sympathetic chain coming down from thorax, cuts, and removes very large ganglion representing first two lumbar. Stops all bleeding with diathermy. Huge lumbar vein in view. Says he rarely ties these; can coax chain under them, or divide above and below.

He got idea from watching blood pressure drop in spinals. Started by laminectomy, and resecting anterior roots from D.6 to L.12. Then developed this operation. First removed half suprarenals, but thinks this operation interrupting sympathetic supply to adrenals and kidneys does all you need.

9. *Walters* at work on a jejunal ulcer. He says unnecessary to resect jejunum as ulcer will heal. He has detached jejunum temporarily closed hole in stomach, and is cobbling a large irregular hole in jejunum, whose lumen he modifies by anterior cuts. It seems to me twice as difficult as the other way, and does not look so nice.

Then to stomach for gastrectomy. Starts at pylorus, tying vessels first above, then below. Then gets finger in lesser sac behind stomach and starts high on greater curve, dividing vessels between clamps.

I had to leave this to have lunch at the Kahler with Dixon. He had a party of about eight. Excellent fellow, red-haired, has travelled a great deal in Europe. You never hear a Mayo man criticise anybody, but I gather his opinion of S. is the usual one.

After lunch to Balfour again, who is very anxious that I should get the Mayo Clinic into my head. It is pretty well impossible. There seem to be four great bodies :—

1. The Clinic.—An enormous diagnostic machine handling patients as they arrive. This costs about 12,000 dollars a day to run. The excess takings go into—

2. The Mayo Holding Company, or something of that sort. From here it can only be piled up, and the income used for research or scientific purposes, not for the Clinic. If times are bad the Clinic salaries must come down.

3. The Mayo Foundation, a big trust in the University of Minnesota (about 2,500,000 dollars) from which the Fellows (juniors) are paid 900 dollars a year each, and part of the salaries of various others.

4. The Kahler Corporation (nothing to do with the Mayos) that owns the hotels, shops, and most of the town. Being entirely dependent on them, it does what they want.

In the big room where we were, one wall is covered with an analysis of departments, with the names of all of the men in slips; another wall

with photographs of everybody, identical size and in alphabetical order. One panel is the permanent staff, one the temporary, but few of these stay less than ten years.

It is interesting to see the enormous multiplicity of departments, yet the extraordinary care they take to avoid localisation and over-specialisation. In treatment there are, for instance, departments of per-urethral surgery, urological diagnosis (Braasch), proctology (Buie, who only does piles, proctoscopy and so on); in science there is pathological anatomy (Robertson), surgical pathology (McCartney), experimental bacteriology (Rosenow), immunology (some man who is called in to all infections), as well as hæmatology, biochemistry, clinical physiology, and a host of others. They push men about in departments as much as they can. If a young man has a brain-wave, they send him to talk it over with the clinician and scientist concerned; if it is still waving, all the cases bearing on his idea are referred to him (he is allowed to see them, and gets their notes, blood, etc.), and if he needs it he is given a bench to work with Mann.

All research must have a clinical bearing. They cannot carry pure science, and have had to shut down some departments.

At 4.30 I went back to the Kahler to see Pemberton in the middle of a list of ten big operations. He had several goitres. He works round each lobe with forceps, mostly tying as he goes. His idea is that chief danger to recurrent laryngeal is from the tracheal side, not from behind. He likes to leave sides of trachea and larynx still clothed in gland. Thus he leaves quite a lot, and never really goes for the upper pole. Hæmostasis is very largely with a running stitch; he says stitch never goes behind anterior plane of trachea, and therefore cannot injure nerves. Makes all patients cough and strain before he sews up. (Fig. 61.)

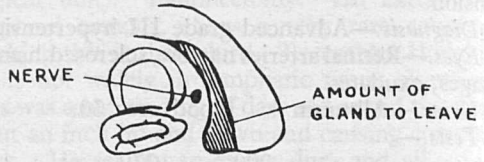

Fig. 61.

Two more goitres. "Lugolised" is a good word in common use. Right branchial cyst, nicely done through crease incision half-way along it. I should like to see old Mayo scars; they do not consciously worry about them.

Old drained appendix abscess; removes stump of appendix through right rectus muscle split.

Tenth and last (7 p.m.). Cancer of recto-sigmoid, says whatever proctologist says about level, if you cannot feel it per rectum, it is a sigmoid growth. Left gridiron. Case inoperable (metastases in liver). Left inguinal loop colostomy, which he says gives no danger of hernia.

Fig. 62.

Uses a strip of external oblique aponeurosis as a fascial dam through the hole in the mesentery. Idea is to prevent hernia through abdominal wall. (Fig. 62.)

(To be continued)

On Writing Medical Papers

By G. A. R. Winston, Esq., Wills Librarian

DURING the past few years there has been a noticeable increase in the number of students preparing papers for prize essays, writing up case reports of interest for the heads of their firms, and papers to be read before the various Societies. They search the textbooks on an obscure subject only to find that very little has been written or is known about it, and are much surprised that no monograph exists. If they would only turn to the periodical literature by referring to the various sources of information and compile a list of references they would save themselves much valuable time and place themselves in a position of knowing exactly what had been written on the subject, but very few are aware of the many sources at their disposal.

It is apparent to many that the task of compiling a list of references by wading through a large number of journals is most unsatisfactory. Not only is it laborious, but one can never hope to obtain references to all the articles written on a certain subject. Although most journals publish excellent indexes to each volume, the number of volumes to be consulted are so numerous that it is almost impossible for anyone to spend the time on them.

A student does not really appreciate the use of a library until he wades through the various indexes and compiles a complete list of references to his subject. He is able to collate them in some organised form, going through them systematically, and is astonished at the amount of material at his command. It is no exaggeration to say that the most successful student is he who takes the trouble to delve deeply into all the sources of information, and is able to consult most of the original articles provided in the vast amount of periodical literature.

Textbooks or monographs do not entirely provide the needs of those writing papers, as most of these are very much reduced in detail. For the purpose of such papers it is to the latest work on the subject that a writer should refer. The historical part, if required, can be obtained from the textbooks. Therefore, his first progressive step is to become familiar with the periodical literature, and in this respect he will always find plenty of assistance available in the libraries he uses.

The library can be of much service to the research worker, and particularly helpful to him in preparing his list of references, before embarking on the actual piecing together of all his collected material.

A bibliography should be prepared with great care and accuracy.

Having compiled his list of references the student naturally wonders where he is to obtain all the journals he wants to consult. This also is not the formidable task he first imagines. In the Wills Library we take over 100 separate publications from all sources, of which 40 are bound regularly. The rest are filed and are readily available to all who want to consult them.

Our collection amounts to about 6,000 volumes, bound and unbound. From time to time a list of periodicals in the Wills Library and in the Hospital Departmental Libraries is published in the *Gazette*, and this list is displayed in the Periodical Room, which shows everything available at the Hospital.

Knowing those available in the Wills Library, he then turns to the *World List of Scientific Periodicals*, which is a most valuable tool in tracing the whereabouts of a journal. Against each entry is given symbols which refer to libraries throughout the British Isles where a particular periodical can be obtained. A synopsis of library symbols is given at the beginning of the volume. In addition, a most valuable guide to the literature obtainable at many medical libraries is that published by the British Medical Association. Edited by R. T. Leiper, all the journals listed are arranged under the country of publication, giving the extent of each library's holding, together with symbols indicating where the journals may be found.

These catalogues serve the purpose of giving the research worker an opportunity of knowing where a certain periodical can be obtained, because it has been realised that the lack of access to the literature of a subject continually baulks the scientific worker.

There is also the *Union Catalogue of the Periodical Publications* in the University Libraries of the British Isles a complete list of all periodical publications so far as they are possessed by the library of any University or University Institution in the British Isles, excluding titles in the World List. Under the title of each periodical a list is given of the particular libraries in which the journal is to be found and the extent of each library's holding. By the use of this catalogue it is possible to locate the periodicals to be found in no fewer than 110 libraries in the British Isles. Most of the periodicals can be obtained on loan by University Libraries on application to the National Central Library.

A doubt always arises in the minds of students as to whether they may use the libraries of other institutions. Fortunately, there is a much closer co-operation between libraries nowadays, and the research worker will find facilities for reading, and through the Wills Library he may obtain books and periodicals from the Science Museum and the London School of Hygiene and Tropical Medicine.

Although, strictly speaking, he is not allowed to borrow books on his own initiative, a letter of introduction will more often than not enable him to consult the literature available in other libraries. The National Central Library, through its system of inter-library loans, is responsible for obtaining through other libraries literature which is not immediately available to the student in his own library.

BIBLIOGRAPHY

The making of a bibliography naturally falls into three divisions :—

A. Collection of material.
B. Arrangement.
C. Details of construction.

A. *Collection of Material*

This is a matter more of time than difficulty in obtaining the required information.

Medical men are particularly fortunate, as there are many sources from which information may be obtained. The two most important are the *Surgeon-General's Catalogue* and the *Quarterly*

Cumulative Index Medicus, which has now taken the place of the *Index Medicus*. In various journals there are Epitomes, Abstracts and Reviews, and a general survey of current medical literature. Many important journals publish abstracts from articles appearing in other journals such as the British Chemical and Physiological Abstracts, which has taken the place of Physiological Abstracts.

Therefore, to " look up " a subject is not such a formidable task when this prepared material is at hand.

Indexes.—Of first importance is *The Index Catalogue of the Library of the Surgeon-General's Office* (Army Medical Library), Washington.

Popularly known as the Surgeon-General's Catalogue, has been in existence since 1800, and atones for all shortcomings in the collection of material, as it furnishes a universal bibliography from the earliest times. At a glance the whole range of medical literature on a given subject is available, and it is impossible to over-estimate its importance to research workers.

This catalogue is issued by the War Department for the Surgeon-General, United States Army, and comprises an author and subject catalogue, alphabetically arranged, containing articles published in nearly 2,000 journals. Articles taken from periodical publications are indexed under the subject only, while monographs and separate publications are entered twice—(1) under the name of the author, (2) under the subject.

It is not necessary to go into details on the arrangement as this can always be explained by the Librarian at the time the reader wants to use the index. Suffice it to say that practically everything appearing in any medical journal is indexed under main subjects, together with sub-headings.

The first series started in 1800, and contains all the references to medical literature from the earliest times to the end of 1895, comprising 16 volumes.

The second series comprises 21 volumes covering the period 1896 to 1916.

The third series comprises 10 volumes covering the period 1918 to 1932, and contains the literature published to the end of 1925 only.

The fourth series is now in course of compilation, of which Volume 2 (B) appeared in 1937, including all the literature from 1926 to date.

The volumes in each series are arranged alphabetically from A—Z and have appeared approximately at intervals of twelve months.

The bibliography is brought up to date by having recourse to *The Quarterly Cumulative Index Medicus*, which is the only current complete index to medical literature in existence.

The index is arranged on the dictionary principle, containing in one complete alphabet the current literature of articles in medical periodicals, transactions and separate publications, under authors and subjects, therefore indexing itself. In 1927 it combined with the *Index Medicus*, since when it has been issued quarterly in May, August, November and February. The May number indexes journals issued during the three immediate preceding months, but is superseded by the August number, which is bound for permanence in cloth and contains in one alphabet all the references to articles published in the May number. The August number therefore contains the periodical literature published during the first six months of the year. Similarly, the February number supersedes the November number, and contains the material published during the last six months of the year. This index is the most up-to-date publication of its kind. The main index is preceded by a list of new books, arranged in alphabetical order, followed by a subject classification of the same material.

There is a list of journals indexed, under their abbreviated form, followed by the full title of the journal. The abbreviation of titles of journals will be dealt with under details of construction of references.

The subject entry is prepared by translating the title if in a foreign language and by shortening to emphasize the significant portions, while under the name of the author the reference is usually given in the original language.

Index Medicus.—The *Index Medicus* was started in the year 1879 as a monthly classified record of the current medical literature of the world. During the 46 years of its existence the *Index Medicus* issued 43 volumes, as follows :—

1st series 1879-1899, Volumes 1-19.
2nd series 1903-1920, Volumes 1-18.
3rd series 1921-1926-7, Volumes 1-6.

It is consulted in exactly the same way as the other indexes, except that, instead of being arranged under authors and subjects, it has a separate author index. It indexes itself alphabetically as to subjects.

Dental Literature.—Dental students are well provided for, and are able to compile lists of references from the same sources as those already mentioned. In addition, they will find much help from the *Index to Periodical Dental Literature*, compiled by Arthur D. Black. In the Wills Library we have indexes covering all the dental literature published from 1911 to 1932. It is an index of periodical dental literature published in the English language, including eighty-seven publications. There is a Classified Subject Index on the Dewey Decimal Classification principle, an

alphabetical Author Index, and a list of Dental Books.

Abstracting Journals.—The bibliography can be still further brought up to date by consulting certain journals publishing abstracts, and giving references to articles appearing in contemporary publications. A list of those taken in the Wills Library and the Departmental Libraries is given below :—

American Heart Journal.
American Journal of Cancer.
American Review of Tuberculosis.
Archives of Pathology.
Biological Abstracts.
British Chemical and Physiological Abstracts
British Dental Journal.
Bulletin of Hygiene.
Journal of the American Medical Association.
Journal of Mental Science.
Klinische Wochenschrift.
Surgery, Gynæcology and Obstetrics.

Other Sources of Information.—Mention must be made of two other valuable publications where references may be found.

The *Medical Annual*, published yearly, is full of interesting articles, and is considered to be a review of the year's work on the treatment of disease. At the end of each article is a list of references to the subject.

The *British Encyclopædia of Medical Practice*, under the General Editorship of Sir Humphrey Rolleston and published by Butterworth & Co., Ltd., is in course of compilation. Seven volumes have so far appeared. The articles are arranged in alphabetical order with cross references to allied subjects, and an abundance of references at the end of each article.

B.—*Arrangement*

This depends to a large extent on the purpose for which the bibliography is intended.

They are either :—

(*a*) Alphabetically arranged according to authors ;
(*b*) Chronologically arranged ;
(*c*) Classified if of great length.

C.—*Details of Construction*

The construction and the form in which the reference should be written depends on the editors of the journals for which the paper is intended.

Lists of references are not required merely as evidence or erudition. They should never be quoted unless the author has actually consulted them, and should never be taken from another article without verification.

When quoting references they should be verified by the writer himself and never accepted as second-hand information. If the reference cannot be checked with the original and yet must be included, the words " quoted from " should be used. Many errors are perpetuated because authors have not taken the trouble to verify their references, but have accepted them from another article.

Actually the whole object of a bibliography is to indicate the sources from where the author has obtained his information, and these only should be given. Editors do not favour a long list of references which have not actually been read by the author, and this is considered one of the greatest sins a writer can commit.

When one considers the appalling waste of time caused by incorrect and imperfect references, it will be obvious that a few suggestions tending to reduce them to a minimum will be of some useful service. Until recently there has been little or no attempt to standardise the form the reference should take. Although many journals insist on a special form, there are others which are not so particular, and, of course, the whole bibliography lacks uniformity. Only those persons who are constantly reading medical journals can fully appreciate the time wasted through these errors.

The references first of all must be collected. The greatly increased number of journals make it imperative that exact references are not only necessary but essential, but there is no need to put the title of an article when giving a list of references.

The following information is desirable :—

Surname of author followed by the initial.
Title of the journal in abbreviated form.
Year of publication.
Number of volume.
Page.

The Author Entry.—Begin with the surname followed by the initials of his Christian names. It is preferable to put the initials without brackets. The French " de," without the article, and the German " von " are usually placed after the Christian names.

If the author is known by one of his Christian names and surname, it should be placed under the last name, that is the surname. This may, however, give rise to mistakes in the case of Dutch, Scandinavian and Spanish names, as a man often adds his mother's maiden name to the end of his surname. Thus, what is generally called Van den Bergh is really Hijman Van den Bergh, Hijman being the surname and Van den Bergh his mother's name.

In the case of a hyphened name, it is always placed under the first name by which the author is known, as, for example, A. B. Godfrey-Smith :—

Godfrey-Smith, A. B.—never under Smith.

Titles of Journals.—The name of the periodical should be abbreviated in such a way as to avoid confusion as to its nationality. The full title of the journal is unnecessary. Titles are shortened by abbreviation, contraction, or omission of words. The leading rule is to shorten the title only to such an extent that the country of publication is easily recognised without the addition of the place of publication. The subject of the journal should stand out to avoid confusion with others. Certain words are omitted from the shortened title. Conjunctions are generally disregarded except in a few cases where they connect two equally important nouns of the title. Unessential adjectives, all prepositions, definite and indefinite articles, are omitted.

As regards abbreviation, many journals have adopted a particular form on the lines of one of the recognised catalogues. The point to remember is that the abbreviation must be the same in every case. Every journal has sundry preferences or prejudices, but the form most journals take now is that contracted according to the "World List of Scientific Periodicals." Two other recognised authorities are the *Surgeon-General's Catalogue* and the *Quarterly Cumulative Index Medicus*. In all three there are lists of abbreviations of titles, so it is quite an easy matter to check the abbreviations and keep them uniform throughout.

Year of Publication.—References to periodicals should contain year of publication, volume and page. The dates of the weekly, monthly or quarterly parts need not be given, as it means searching through many pages after the journal has been bound. Many journals prefer the year of publication to follow the name of the author, thus :—

Godfrey-Smith, A. B. (1936).

Others prefer the year to follow the title of the publication, as, for example :—

Findlay, *L. Arch. Dis. Childh.*, 1932.

Number of the Volume.—The number of the volume is the cause of much controversy. For many years it was always considered best to use roman numbers, following the year. This had a great advantage over the arabic, as it avoided any confusion with the year and the number of the page. Nowadays, the custom is to insert the number of the volume in bold face (Clarendon) type. In the manuscript this is indicated by underlining the number of the volume, thus ~~~

Attention is drawn to sets divided up into series. Strictly speaking, the list of references should quote the series as well as the number of the volume. Journals having more than one series often have a series number in addition to the whole series volume. The *Guy's Hospital Reports* is an example of this, but it is usual to quote the complete number and not that of the series. When collecting references it is an advantage to know the series number as this simplifies matters if the set of books has not both letterings on the backs :—

Guy's Hosp. Rep., 1908, **62** (3rd Ser. **47**), 25.

or—

Guy's Hosp. Rep., 1908, lxii (3rd Ser. xlvii), 25.

Page.—The first page on which the article appears is placed last. In some cases the pages covering the whole length of the article are used, when collecting references, thus : 69-75. This is an advantage as it gives some idea as to the length of the paper, but only the first page is included in the reference for publication.

Separate Publications.—When quoting books, or separate publications, as apart from periodical literature, it is necessary to put the name of the author, title of the book, the edition, number of pages, place and year of publication :—

Gager, L. T. Hypertension, 158 p. Balt., 1930.

as used in the *Surgeon-General's Catalogue*.

There is no object in repeating the name of the author, or the name of the journal when it is the same in the next line. The same author is indicated by a dash while the name of the journal is always indicated by *Ibid.*, which indicates that the article was published in the same journal as the preceding one; if the abbreviation *Ibid.* is followed only by a reference to pages, the volume and year are also the same as in the preceding entry.

Quotations in the Text.—In the text of the article a most useful guide to a reference is to give the name of the author and the date of publication thus : "It has been stated by Smith (1935) . . ." but if there is more than one reference to Smith in the same year they should be distinguished by marking them *a*, *b* and *c*.

Another method is to insert a number indicating the particular reference to which the writer refers in his bibliography thus : "It has been stated by Smith[12] . . .," which refers to the twelfth item in the list of references when this is numbered. This method is gradually being dropped, and of the two the former is more universally adopted.

The list of authors quoted is usually placed in alphabetical order at the end of the article, but if the text is numbered, the references naturally follow this arrangement. Editors to many journals prefer both, alphabetical and numbered.

A reference to an abstract of a paper should state the journal where the article originally appeared. This applies to all periodicals publishing abstracts.

Abbreviations.—There are many different ways of abbreviating titles of journals, as will be seen from the following examples :—

British Medical Journal—B.M.J., Brit. Med. Jour., Brit. M. Jour., Brit. M.J., Brit. Med. J.

Zeitschrift—Z., Zschr., Zeit., Zeitschr., Ztschr.

The following table gives some idea of other variations :—

Quarterly Cumulative Index Medicus.	*Surgeon-General's Catalogue.*	*World List of Scientific Periodicals.*
Acta. med. Scandinav.	Acta. med. Scand.	Acta med. Scand.
Brit. M.J.	Brit. M.J.	Brit. med. J.
J.A.M.A.	J.Am.M.Ass.	J.Amer.med.Ass.
J. Exper. Med.	J. Exp. Med.	J. exp. Med.
J. Obst. & Gynæc. Brit. Emp.	J. Obst. Gyn. Brit. Empire	J. Obstet. Gynæc.
Surg. Gynec. & Obst.	Surg. Gyn. Obst.	Surg. Gynec. Obstet.

These examples will emphasize the importance of selecting one of the recognised authorities and keeping to that particular style. Whichever form is used care should be taken to see that the whole bibliography is uniform throughout and the contractions in the abbreviations the same in every case.

The abbreviations used by the *Quarterly Cumulative Index Medicus* are followed by a number of journals, and have been adopted by the Royal Society of Medicine, who publish their Editorial rules in each number of the Proceedings. Examples are as follows :—

(If to a journal)—

Atkinson, J. (1921), *J. Biol. Chem.*, **47**, 134.

(If to a book)—

Brown, C. D. (1935), "*Diseases of the Skin*," London.

References in the *Quarterly Cumulative Index Medicus* are very full and give the actual date of publication of the journal. This is an advantage, because it enables a librarian to obtain the article quickly from the unbound sets, instead of wading through many parts when only the number of the page is given. The reference should never be given in this exact form in the list of references, as the following example will show, and depending on the adopted style :—

W. J. Atwell, *Am. J. Physiol.*, **118**, 452-456. March, '37,

should read—

Atwell, W. J. (1937), *Am. J. Physiol.*, **118**, 452.

or—

Atwell, W. J. *Am. J. Physiol.*, 1937, **118**, 452.

or—

Atwell, W. J. *Am. J. Physiol.*, 1937, cxviii, 452.

As regards preferences and prejudices in selecting a recognised authority for the quotation of references the *Surgeon-General's Catalogue* and the *Quarterly Cumulative Index Medicus* have many advantages.

As the latter is the most up-to-date Index, most of the references would be taken from this publication, and it is quite a simple matter to write down the references at the start as they are printed and thus save time in checking them against that of another authority. Moreover, several new journals have appeared in recent years that one is not certain of finding all the titles in the World List of Scientific Periodicals.

Harvard System.—There is now in existence an internationally agreed system on abbreviations and the exact form the reference should take. This is known as the Harvard System of giving references to scientific literature, and has been adopted by the majority of first-class English journals, details of which were published in the *British Medical Journal* (January 2nd, 1937) under "A Note to Contributors." In the text the year of publication must follow the author's name. Should there be more than one paper to the same author in any one year, each paper is indicated by a small letter *a*, *b*, etc.

Example : (Brown, 1935*a*).

Example : It has been said (Jones, 1935) that coma in heart disease is rare.

When the author's name is part of the sentence, only the year of publication is to be in brackets.

Example : Dale and Dudley (1929) isolated acetylcholine from animal tissues.

References at end of paper are arranged in alphabetical order of author's name, numbering is not necessary. Titles of periodicals are abbreviated according to the World List of Scientific Periodicals.

Examples :—

Bourne, M. C., and Pyke, M. A. (1935). *Biochem. J.* **29**, 1865.

—— and Young, L. (1934) *Ibid.* **28**, 803.

Day, P. L., and Langston, W. C. (1933). *J. Nutrit.*, **7**, 97.

The World List of Scientific Periodicals have adopted both the general and special rules of the International Code of Abbreviations of Titles of Periodicals.

Care should be taken to note words with capital and small letters, and to write down the abbreviations exactly as they are written. Special note should also be made of the punctuations used.

Editorial instructions are usually given by the journals concerned, and it is as well to know of these requirements and conform to them. It saves an author a lot of bother and additional work in checking references and arranging abbreviations. Authors are, therefore, compelled to adopt the style as required by editors, and to use a recognised system such as the World List of Scientific Periodicals, the *Surgeon-General's Catalogue* or the *Quarterly Cumulative Index Medicus*, one of which has now been adopted by the majority as the recognised authority in abbreviating titles of journals.

Punctuation.—Wrong punctuation in manuscripts and galley proofs is the cause of much annoyance to editors, and gives them much unnecessary work in making the alterations.

Care should be taken when inserting commas and full-stops in the references. It has been noticed that no two journals are alike, and they differ in some respect or another.

Preparation of the Paper.—The preparation of the paper is most important, especially if it is intended for publication. Many journals have their own style, and insist that authors should keep to that style. As an example, the *Lancet* published in 1937 a supplement headed " On Writing for the *Lancet*," in which certain instructions are given to authors. The *Journal of Physiology* has done likewise.

Manuscripts should be carefully written and revised before going to press. They should be typewritten, on one side of the paper only, preferably quarto size, with double spacing throughout, wide margins, and the pages numbered.

It must be remembered that any alterations to the proofs are chargeable to the authors, as the publishers' costs are greatly increased by changes in the original setting up of the type.

Conclusion.—On writing medical papers the first step is to collect all the references to the available material from the various indexes and abstracts. Find out the availability of, and the possibility of access to, the various journals. Prepare the bibliography with great care, using one of the recognised authorities, and follow the instructions required by editors. Particular attention should be paid to quotations in the text, the use of capital and small letters in the title of the journal, the position of the year of publication, whether the number of the volume should be in roman numerals or in arabic with bold face (Clarendon) type, and the exact punctuations used.

The Harvard system is definitely favoured by the majority of editors, although it has been noticed that this system has been subject to some slight variations by certain journals.

The style adopted by the *Guy's Hospital Reports* is that which is now used by all the best journals in England, and follows very closely the directions issued by the *Journal of Physiology* and those of the *Lancet* and *British Medical Journal*. The abbreviations used are those of the World List of Scientific Periodicals, and not those of the *Quarterly Cumulative Index Medicus* or the *Surgeon-General's Catalogue*.

"Poor" Kidneys

By A. Ralph Thompson, Esq., Ch.M., F.R.C.S.

CASES are frequently met with, such as an enlarged prostate or stricture of the urethra, in connection with which a report is given by the chemist that the kidneys are not acting well. Such cases have " poor " kidneys. As an operation may be beneficial, it is essential that the surgeon should form some estimate of the actual condition of the kidneys. If a student had asked me to summarise the conditions that give rise to " poor " kidneys a few years back, I might have hazarded some suggestions, but I could not have given him a clear answer. Having gone through my own clinical notes, and a very large number of post-mortem reports from Guy's, the London, and the Victoria Hospitals, I think that now I can answer his question. It may be said at once that pressure acting through the bladder and the ureters may produce hydronephrosis, irritative nephritis, indistinguishable from the acute and chronic forms of Bright's disease, and septic infection of the renal substance.

Secondary affections of the kidneys may thus be due to influences working along the passages of the urinary organs. But this answer would not be enough, for there are many cases in which another route for spread of trouble has been evident. Ascending affections of the kidney may follow upon cancer of the uterus or ovary or rectum.

They may also occur following upon cancer of the abdominal glands. In these cases the bladder and ureters have not shown any sign of trouble, but the kidneys have been found to be septic. Moreover my cases show that where an enlarged prostate or a stricture of the urethra might have been expected to show bilateral renal disease, yet in some cases only one kidney has been affected, and further, that the other kidney has become compensatorily enlarged. At one time I thought that the differing relations of the two kidneys might be responsible for this state of affairs, and I still think that this conception might explain some of these phenomena, but quite lately a new conception was offered to me in a view of a sheep's carcase that I saw displayed in a butcher's shop. Here there was shown very definitely the presence of a cellular column filled with fat, and I propose to call this column the " periurinary column." This column passes upwards from the outlet of the skeletal pelvis to the true brim of the pelvis, and at this level it splits into two parts which pass into the abdomen, being separated from each other by the vertebral column, and the main blood vessels of the abdomen. These columns pass upward to the under surface of the diaphragm. In this column lie many organs. The whole of the urinary apparatus, and their blood vessels and nerves, all the female genitals, and in the male the prostate and the vesicles. The cellular tissue of the testes and the mesentery are connected with the periurinary column. The perinephric tissue forms only a small part of this periurinary column. Infection of this column from whatever cause may pass to the kidneys, or if only one abdominal column be affected, only to the one kidney.

There are notes made by different examiners of such causes as a small meatus which has become septic, an enlarged prostate or a stricture of the urethra having infected this column, and cancer of the uterus, ovary and rectum may also lead to the infection of the column. Infection of the column may stop short of the kidney, and thus abscesses may be formed at various levels in the abdomen below the kidney. This statement is proved by reference to certain nervous diseases which have led to death before the kidneys were infected. The spread of infection to the kidney may be prevented by suitable operations. I have operated upon such cases as perinephric abscess due to a tight prepuce, or an enlarged prostate, and paid attention to the cause, and the result has been most satisfactory. An infection of the periurinary column may lead to the formation of a fibrous band leading to obstruction to the ureter or renal pelvis, and thus hydronephrosis may result.

As a clinical fact I have been accustomed to regard the presence of a stone in the bladder with an enlarged prostate as a serious complication. The explanation of the presence of the stone is rather complicated. Most students, I think, explain the presence of a stone in the bladder with enlarged prostate as a result of stasis of urine in the bladder. The enlargement of the stone may be due to the deposit of phosphates in the bladder, but the nucleus never came from the bladder. It was formed in the kidney as a deposit of urates or oxalates, and was passed into the bladder as a travelling renal stone. There are notes of a case illustrating this. A man had an enlarged prostate. There was perinephritis, and this had formed a band and had led to obstruction of the ureter, and hydronephrosis had resulted. Now there are a good many cases in which gravel had formed in the hydronephrosis, and as a result of it further very small stones may be found, far too small to have caused obstruction, and there was one case in which far from having caused obstruction in a case of hydronephrosis, it was found to be firmly impacted in one of the calyces of the kidney. Thus the hydronephrosis in each case had led to the formation of gravel or a stone, and in the case of enlarged prostate the stone had formed in the kidney as a result of the hydronephrosis, and had been passed into the bladder, and had been increased in size there, but not formed there. Stones do not so much lead to a poor kidney as result from it, and I must say that I was most surprised when Dr. Conybeare told me (I speak from memory) that insurance societies did not mulct heavily a man who had passed a stone. I am far from thinking that they are right.

In addition to perinephritis and hydronephrosis, there are a certain number of cases of tubal and granular disease of the kidney which occur as a result of ascending affection of the periurinary tract or by the intertubular route. I have had one clinical case of a man who had a severe stricture of the urethra, develop later a tubal nephritis. Granular disease may occur unilaterally, and when this occurs on the same side as, for example, a cancer of the ovary, one is tempted to connect the two conditions. Acute septic infection of the kidney or kidneys may occur as a result of enlarged prostate, or of cancer of the uterus or ovary or rectum, all being contents of the periurinary column. Thus in answer to the student's question as to nature of " poor " kidneys we may now answer that hydronephrosis stone formation, acute and chronic non-septic nephritis, and suppurative nephritis may occur as a result of disease of any of the contents of the periurinary column, and with this knowledge we must not forget that any one of these complications may follow upon disease of organs such as the

uterus, ovary and rectum, which are situated in this column as well as the urinary organs. I am well aware of the researches of Marcus Beck, Kenneth Walker, Stevens (quoted by Osler), and Winsbury White, but perhaps by no one has this periurinary column been recognised as it should be. It is important for the students to recollect that affections of this column may precede infection of the kidney substance, and that it is during the period when the kidney is not yet infected that surgery offers a good chance of cure.

I am indebted to the Editors of the *Gazette* for permission to publish these few notes, and I hope that they may be useful to some students.

Renal Function

A Paper read before the Physiological Society of Guy's Hospital by K. H. Walter, Esq. and D. Stafford-Clark, Esq.

(*Continued*)

We have seen the idea that, for a no-threshold body once past the glomerulus, once in the filtrate, there can be no return. And although this idea propounded by Cushny is no longer completely acceptable, it suggests that we can gain, perhaps, by regarding all structures subsequent to the glomerulus as being outside the body, in the same way that certain extremists regard the lining of the alimentary canal as being an external surface.

Accepting this view, we take as our final portal our exit from the sheltered peace of the circulation. If we are a no-threshold body, the glomerulus, which we can picture as analogous to the outside doors of an old music hall—once outside, undesirables had to find somewhere else to go.

But Cushny was upset to discover that in several cases his no-threshold bodies had apparently defied his definition of them. In this respect the most prominent transgressors were the sulphates, which occasionally appeared in less concentration in the urine than they should have, while his other substances in this category, such as urea and creatinine, suffered occasional lapses from grace.

The irregularity of the no-threshold substances was not the only trouble with which followers of Cushny had to content.

Other investigators, not content with an explanation so readily acceptable on grounds of reason as his, completely disrupted the entire conception by proving by sundry experiments that the reabsorbed fluid was not in fact always constant in composition.

This, the inconstancy of the reabsorbed fluid, when proved beyond doubt, effectually accounted for a theory which deserved to be right, if we may use such an expression, if ever any theory based on reason and engendered by intelligence can lay such claims.

Part of Cushny's investigations, however, had been directed to discrediting the theory of secretion by the tubules, with which he strongly disagreed, and the following experiment of his was, and still is as far as we know, a considerable thorn in the flesh of the secretionists.

Cushny took a rabbit and removed one kidney from it, immediately afterwards cutting the spinal cord in order to ensure a generalised fall in blood pressure of such extent that no further passage of urine by the rabbit occurred. After two hours, during which, of course, there was no micturition or appreciable filling of the bladder, he killed the rabbit, removing the other kidney. He then estimated the urea content of both kidneys, and in every case the first kidney, namely that removed at the beginning of the experiment, contained more urea than the second. The conclusion from this is naturally that, had the tubule cells been secreting urea, none of which could have been lost, during the two hours of the experiment, the second kidney should definitely have shown evidence of a greater concentration of urea than the first, removed before the start of the experiment proper. Since the result was precisely the reverse of this, Cushny argued that the theory of secretion must be mistaken, an argument which certainly unsettled those followers of this theory who were inclined to be dogmatic.

A recent experiment, perhaps even more interesting, which permits apparently of but one explanation, and that the reverse of Cushny's arguments, has done much to re-establish our faith in the theory of secretion.

The dogfish, swimming stealthily in his native ocean, maintains normally a very high blood urea level. Urea is probably for him a threshold substance, since the relatively high osmotic pressure of his fluid environment demands his blood to be isotonic since it is separated only by a semi-permeable membrane in the gills from the water in which he swims. If we take him out of his marine environment and place him instead in distilled water suitably oxygenated, he will not live long, but during the moments before he finally succumbs he is quite obviously very ill indeed. He promises, poor fellow, an interesting reward for the labour involved at a subsequent autopsy.

When this is performed, the cells of the tubules are found by staining with Xanthydrol to be packed with urea, some of which will be already in the tubules, this result being obtainable even if the dogfish is killed artificially within two or three minutes of being placed in the distilled water, while a control shows no such concentration.

The only possible explanation seems to be that the new environment demands a blood of greatly diminished osmotic pressure, in response to which vital need the urea is extruded from the circulation as much as possible by active secretion of urea by the tubule cells from the blood into the filtrate in the lumen of the tubules. This would appear to be a triumph for secretion.

The fall of Cushny's theory left things in an unsettled state which lasted until Rehburg put forward his modification of Cushny's theory. This modification, although no longer retaining those elements of complete simplicity coupled with sound appeal to reason, gained in its ability to account for every known phenomenon connected with renal function what it lost by comparison with Cushny's original theory as a work of art.

Rehburg adopted a new basis for the classification of threshold and no-threshold bodies; the former were, he said, only those substances which were reabsorbed from the glomerular filtrate by an active process of the tubule cells, all other substances being no-threshold bodies.

In this way he accounted for the concentration in the urine, of no-threshold bodies, when it was too low, by assuming that some of the no-threshold bodies had regained the intertubular capillaries via the tubule walls, not by being actively reabsorbed, but by a passive process of physical diffusion.

Thus, under this assumption of back diffusion, three sets of substances could be separated by their behaviour in the kidney. First, the threshold bodies, which were definitely reabsorbed into the blood stream by the tubule cells, only appearing in the urine when their concentration in the blood rose above a certain fixed level—this being their renal threshold. Such substances were glucose, water and sometimes chlorides and bicarbonates. All other substances not so reabsorbed were no-threshold bodies, of which there existed two kinds: those which, although not definitely reabsorbed by the tubule cells, might in fact regain the circulation by the physical process of back diffusion through the tubule walls—and those which were completely indiffusible, which were in fact true no-threshold bodies as visualised by Cushny. As examples of the former there are urea and alcohol, while of the latter the only definitely known example is creatinine. We have ourselves considered, with that care and attention to detail which in all humility we deemed essential to all those endeavouring to think original thoughts in physiology, the exact physical conditions normally obtaining in the glomerulus and tubule, which, we submit, can supply the final explanation of the mechanism of the secretion of urine. The broader theory as propounded by Rehburg we sketched a moment back.

Since the afferent vessel to the glomerulus is larger in diameter than the efferent, it is obvious that there must be a definite pressure head in the glomerulus, the blood leaving the glomerulus deprived of the filtrate being a highly concentrated colloid suspension which contains only just enough water to maintain the colloid in sol as opposed to gel phase. When this concentrated suspension reaches the intertubular capillaries the following factors will combine in tending to produce a reabsorption of water with a corresponding back diffusion of diffusible no-threshold bodies :—

1. High colloid osmotic pressure due to the concentration of the solution in the intertubular capillaries.
2. Low pressure in the capillaries as opposed to high pressure of filtrate in the tubules.
3. Extreme comparative dilution of the filtrate in the tubules so that the filtrate osmotic pressure is normally negligible.

Thus both osmotic and hydrostatic pressure gradients will be considerably in favour of back diffusion, in addition to the active reabsorption which we feel bound to admit probably occurs in the case of established threshold bodies. We would, however, point out that for an enormous range of conditions the physical factors just mentioned would suffice to account for all reabsorption without the necessity for postulating activity on the part of the tubule cells at all. It is only in cases such as an abnormally concentrated filtrate whose osmotic and hydrostatic pressures approached sufficiently near those in the intertubular capillaries so that little or no back diffusion could take place, that the absence of, for instance, glucose from the urine suggests its active reabsorption by the cells.

Although we cannot suppress a fear that what we cherish as our own original brain child—the detailed consideration of the physical conditions in the glomerulus, tubule, and intertubular capillary, from which we have drawn the conclusions just submitted to you—may be snatched from our hapless clasp, that some earlier investigator, of whose ideas we were ignorant, be given the credit for it—yet we shall maintain to the last that, to us at least, it occurred as an original observation, giving rise to the deductions which we have placed before you for the first time now.

As for the place of secretion in the modern theory, which we shall define as Rehburg's theory plus our own contribution, who can say what it is? You have read the evidence for and against secretion in the dogfish and rabbit, to which we can add nothing beyond the observation that it does appear to be a necessity in the explanation of normal human renal function to account for the formed elements (*e.g.*, ammonia from urea). As we see it the modern theory may be fitted to the established histological picture of the kidney structures as follows: In the glomerulus occurs the ultra-filtration, in the first convoluted tubule, the reabsorption of water and threshold bodies, which can also occur in the ascending limb of Henle's loop, while the descending limb has thin walls eminently adapted for the back diffusion of solids in solution.

The secretion of formed elements we touched on a moment ago, instancing ammonia formed in the kidney from urea, but we can give no detailed explanation of it, the acceptance of such secretion as a fact requiring no greater act of faith than the belief common to us all, in the formation of urea from ammonia, and ammonia by deamination, in the liver.

The clinical usefulness of this modern theory we shall feel secure in leaving as a fact to our more experienced readers. It forms the basis for such tests as the urea concentration test, the creatinine concentration test, and the water concentration test—the last-named, although by far the most simple to perform, being never used at this Hospital for reasons which for the moment escape us.

Suffice it to say that Mr. K. H. Walker, while he was secretary of the Physiological Society, with incredible zeal and creditable martyrdom performed it upon himself in the capacity of co-worker, not to say inspiration, of this paper. The results were given in reply to questions following the original reading of this paper.

In conclusion, the modern theory as we leave it with you has to back it the advantage of simplicity, giving as it does a clear working picture of the kidney, excluding any idea of mysterious intelligence or benevolent discrimination on the part of that organ, which idea we abhorred from the start.

We should not need to stress the difficulty of obtaining any direct evidence to substantiate all we have said, the nearest approach being the praiseworthy micro-investigations of Wearn and Richards into the glomerulus of the frog, serving as they did to justify the ultra-filtration part of the theory.

We have found the task of preparing this paper interesting to a degree unbelievable to us when the subject was chosen, and if we have succeeded in communicating to you even a part of that interest by our exposition of it, we feel we could ask no better justification of our labours.

Hospital Information, etc.

Pass List

CONJOINT BOARD.

PRE-MEDICAL EXAMINATION.

June, 1938.

Chemistry.

J. K. Argo	A. A Halamandres
J. F. Baker	J. K. Ogden
A. S. Carruthers	D. C. Steven
G. L. Cocker	L. H. Schuler
J. A. Denney	

Physics

J. F. Baker	I. E. McKechnie
T. M. Ball	D. S. Nelson
A. S. Carruthers	J. K. Ogden
G. L. Cocker	L. H. Schuler
A. A. Halamandres	H. P. Stebbings
E. D. C. Jones	D. C. Steven

Elementary Biology.

J. K. Argo	J. R. C. Matthews
A. S. Carruthers	J. K. Ogden
G. L. Cocker	J. P. Pearce
H. Cohen	J. A. Powell
P. C. Gartrell	W. B. Sanders
D. R. Hone	L. H. Schuler
P. Hopkins	D. C. Steven
G. G. Jackson	D. E. Williams
E. D. C. Jones	T. W. H. Woodward

Changes of Address

Mr. Geoffrey Ebbage, 1, Duke Street, Manchester Square, W.1. *Welbeck* 5217.

E. C. Zorab, M.B., B.S., 6 Cumberland Place, Southampton. *Tel.* 3455.

Birth

GROSS.—On 13th September, 1938, in Lindon Wing, St. Mary's Hospital, Paddington, to Mary (née Baucher), wife of E. C. Gross, Grove House Rochester—a son.

SMITH.—On 3rd September, 1938, to Babs, wife of H. Bryan Smith—a son.

Marriages

FORMBY—HALFORD.—On Thursday, September 1st, 1938, at St. Martin's-in-the-Veldt, Johannesburg, South Africa, C. Elizabeth Halford and Philip Formby.

BAKER—MINIFIE.—On September 17th, 1938, at All Saints' Church, Upper Norwood, Kenneth C. Baker to Gladys Minifie, eldest daughter of Mr. and Mrs. F. G. Minifie, of South Norwood, London.

Death

MUSGROVE.—At his residence, Ael-y-Bryn, Dowlais, suddenly on July 28th, 1938, Capt. Ed. Hugh Musgrove, aged 69.

EDS. { C.H.E. W.E.Y.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

THOSE of our readers who, by reason of their preoccupation or disinclination, were unaware of the seriousness of the international situation must have been rudely brought to their senses last week on opening their copy of the *Gazette*. They will have seen that the normal harmony of the front page was interrupted by that sensational word, "Censored." It was not for reasons of publicity that we were obliged in that way to fill empty space. The hand of authority descended upon us and forbade us the expression of our own interpretation of the evolution of the crisis. We had attempted to anticipate the Prime Minister in finding some good reason why, if war came, we were going to fight. We do not claim that what we said took the form of the stirring broadcast that Mr. Chamberlain made, but, as events turned out, our opinions found much to justify them. We were censored, however, because what we had to say was derived from information that was, to say the least, both third-hand and biassed, and beside that, could not with any reasonable stretch of the imagination be included in "Medicine, Surgery, Dentistry and Hospital News." We venture to suggest that the Hospital cannot in its own interests afford to disregard and dismiss national or international changes and developments of any kind. We like to believe that all readers realise that the opinions expressed in "Passim" are those of the Editors, and that by expressing them we hope to stimulate other opinions either of agreement or the reverse, and thereby to assist that liberal interchange of ideas without which the world tends, as we have lately seen, to come so nearly to grief.

Although the crisis is still uppermost in the minds of most people, we are not disposed to reconsider or analyse the great emotional disturbance that we have passed through during the recent weeks. It is, of course, premature to try to assess the real value of the Munich Agreement, but while we admit to a profound gratitude that we may return to a life which before the crisis we might at times have been guilty of finding a little dull, we nevertheless cannot yet be entirely convinced that a similar situation will not arise again "within our time."

The Hospital went through an enormous upheaval. We are glad to have this opportunity to record our appreciation of the very valuable and thorough preparations made by the Superintendent, and we are proud to believe that had the emergency arisen, Guy's, under his leadership, would have responded in full to every demand made. Our sympathy and our congratulation is due to all Sisters for the manner in which they undertook the arduous extra work that was added to their normal duties. To patients, too, we have a word of thanks for the co-operation they gave and for their willingness to leave with their treatment still incomplete. Lastly, it was almost a joyous spectacle to behold students and nurses preserving the utmost calm and digging for all they were worth.

The present issue does not, as might be considered from its contents, indicate that we are still taking a pessimistic view of the prospects of peace. It has, and we think rightly so, been pointed out by the authorities that no opportunity should be lost in completing the education of ourselves and the public on the problems and methods of air-raid precautions, now that it has been so effectively, if alarmingly, begun. Once the reaction of relief is over, we are sure that a large number of people will examine their innermost thoughts and find

themselves anxious to be entirely familiar with the now famous " A.R.P." that they had rather scornfully neglected but a few weeks ago.

This issue should have welcomed the new students to Guy's. Owing, however, to the postponement of the Opening Address and the beginning of term, as announced in the Notices, we have been compelled to hold over the special number of the *Gazette* that heralds the start of the academic year at this Hospital.

THE academic year in the Medical School starts on October 11th, and the opening address will take place on Friday, October 14th, in the Physiology Theatre, when Sir Henry Dale, C.B.E., M.A., M.D., F.R.C.P., F.R.S., will speak on " The Future of Medicine."

SOON we shall be able to tell you of the work of one Dr. Alexander Cannon, the internationally famous scientist. One of his books, " Sleeping Through Space," we shall review, and so pave the way for your more complete knowledge of " the amazing secrets of how to get what you want and keep well." You will realize the importance of this announcement when you understand that Dr. Cannon is Master-the-Fifth of the Great White Lodge of the Himalayas and, not only that, but Kushog Yogi of Northern Thibet.

A SLICE of daily paper gossip column : " Last week it was impossible to visualise anything after Saturday, October 1st. Invitations to events and occasions for this week or any week had become so evidently still-born." Not even one gin-laden breath was breathed.

Dental School—Post-Graduate Courses

OCTOBER—NOVEMBER, 1938

The following Post-graduate Courses will be held during the period October - November, 1938 :—

1. " Full Denture Prosthesis."

   Professor H. R. B. Fenn, L.D.S., D.D.S.

   A course of six sessions to be held on Mondays at 5.30 p.m., commencing on Monday, October 31st. Entrance fee, £10 10*s*. 0*d*.

2. " Inlays, Crowns and Bridges."

   Mr. W. E. Herbert, L.R.C.P., M.R.C.S., L.D.S.

   A course of six sessions to be held on Tuesdays at 5.30 p.m., commencing on Tuesday, November 1st. Entrance fee, £10 10*s*. 0*d*.

3. " Chairside Bacteriology."

   Mr. A. Bulleid, L.R.C.P., M.R.C.S., L.D.S.

   A course of six sessions to be held on Wednesdays at 6.0 p.m., commencing on Wednesday, November 2nd. Entrance fee, £10 10*s*. 0*d*.

4. " Porcelain Inlays and Jacket Crowns."

   Mr. K. Hooper, L.R.C.P., M.R.C.S., L.D.S.

   A course of six sessions to be held on Thursdays at 5.30 p.m., commencing on Thursday, November 3rd. Entrance fee, £10 10*s*. 0*d*.

5. " Orthodontics—Diagnosis and Treatment Planning."

   Mr. F. Bocquet Bull, L.R.C.P., M.R.C.S., L.D.S.

   A course of six sessions to be held on Fridays at 5.30 p.m. commencing on Friday, November 4th. Entrance fee, £10 10*s*. 0*d*.

6. " Dental Radiology."

   Mr. H. M. Worth, L.R.C.P., M.R.C.S., L.D.S., D.M.R.E.

   A course of six sessions to be held on Saturdays at 2.0 p.m., commencing on Saturday, October 22nd. Entrance fee, £10 10*s*. 0*d*.

Applications for attendance at any of the above courses should be made to the Sub-Dean of the Dental School, Guy's Hospital, London Bridge, S.E.1, not later than October 11th, 1938.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

A.R.P.

A Clinical Lecture delivered at Guy's Hospital by H. J. B. Atkins, Esq., D.M., M.Ch., F.R.C.S.

GENTLEMEN,—I feel that I must preface this lecture by saying that it is my most earnest hope that the facts that I am going to bring to your notice will never have more than a theoretical interest. As a teacher I often find myself speaking in an oracular fashion about things of which I know very little, but never before have I had to lecture on a subject about which a few days ago, to my shame, I knew nothing whatever.

I should like to be able to give you all guidance as to the best practical step you could take at the moment to serve your country. I cannot, unfortunately, do that as I have no authority from the Hospital for advising you what to do. In general, however, and speaking entirely for myself, I should advise those of you who are not yet in the wards to act as though you were unconnected with the medical profession and offer your services to whatever branch you think you may be most suited. For those who have entered the wards, it is certain that at the moment you must commit yourselves to no course of action which may deprive the country of valuable medical services in a year or two's time. Yours is the hardest job of all, quietly to continue with your daily work so far as circumstances allow, when everyone about you is active in the immediate prosecution of preparations for war. This does not mean that you will be out of it at any time. There are part-time occupations associated with A.R.P. which you will be able to do, but I feel that it would be the greatest mistake for those who are nearly qualified to join up as combatants in order to satisfy their natural anxiety to give all they can at once.* Those of you who are already qualified and who have appointments at the Hospital must, at least at present, stand by the Hospital until we see how far your services are indispensable.

I propose to deal in the simplest manner, so far as is possible in one short lecture, with the principles of defence against air attack. My information is based on the following publications, which I would bring to your attention :—

The Home Office Air Raid Precautions Handbooks No. 1, dealing with personal protection against gas, and No. 3, dealing with the medical treatment of gas casualties.

" On Guard Against Gas," by A. J. Sisson (2*s*.).

" Air Raid," by J. Langdon-Davies (2*s*. 6*d*.).

About this last book I should like to give a word of warning. It is full of extremely interesting material, but I cannot avoid the conclusion that it is somewhat alarmist and defeatist. The reasoning, to my mind, is not altogether sound, and there is one grave inconsistency which ruins the argument of the whole book.

First, let us consider the nature of the warning which we may get in the event of attack by air. The detection of the approach of enemy aircraft depends upon the adoption of one of two principles : either (*a*) an extremely sensitive sound detector, or (*b*) an electro-magnetic detector sensitive to the disturbances set up by the high-power engines of aircraft. Both these detectors have a range of approximately fifty miles, and if we are to assume that the maximum speed of a bomber is about 100 miles per hour, we might suppose that we should have half an hour's warning before the aircraft reached our coast. This would probably be an optimistic attitude. The lessons from the Barcelona air raids in March of this year suggest that the technique of what is called " silent approach " will be practised. That is, bombers will climb to a very great height over their own territory and will, before they come within the range of detectors, shut off their engines, thus rendering the detectors ineffective. It is probable that enemy aircraft will approach nearer to their objective before being observed than would be the case if detectors were able to pick them up. I am not going to go into the argument upon which is based a conclusion as to the extent of the time warning, but, while there is considerable disagreement as between authority and authority, it is probable that the sirens will sound ten or twenty minutes before the first bomb drops in London. I gather that the warning siren is to be an intermittent or warbling tone lasting for a period of two minutes. The " All Clear " signal will be a continuous tone lasting for the same period of time. In view of the increasing efficiency of anti-aircraft fire, balloon barrage and similar measures of defence, bombs will probably be dropped from a height over 15,000 feet. Accuracy of aim is, of course, impossible under these circumstances, and the areas damaged will be quite haphazard within the range of a mile or two. The object of such a raid is not so much to cause death and mutilation, nor to blow up strategic points, but to create panic, and it is to

*Since this was written instructions have been drawn up for all students from Ward Clerks upwards as to their duties during air raids.

the prevention of panic that all our efforts must be directed.

It is thought that the course of an air raid might take the following form: Bombs are liable to drop in three or more series. The first series will contain mostly high-explosive bombs. This will destroy buildings and cause an enormous amount of damage. It will also tend to produce panic and confusion, with dislocation of transport. The second series is likely to consist mostly of incendiary bombs, which, by causing fires in various parts of the city when transport may be dislocated, will increase the confusion and tend to drive people from the comparative shelter of their homes. If gas bombs are to be used at all, and some authorities doubt their extensive employment, this will be the time when they will appear, in the third and last wave of bombardment. At this time they will produce their maximum effect in interfering with clearing of roads from débris and transporting the wounded.

Let us now consider the effects of high explosive. These effects can be divided into four stages: First, the bomb falls into the ground, forming a crater and damaging water mains and electric and gas systems. Next, the bomb explodes, throwing fragments in every direction, killing persons in the vicinity and knocking chips off buildings. Thirdly, together with the explosion of the bomb there is a blast of air, which will blow in windows and may destroy outside walls of houses. Immediately succeeding this is the fourth stage. A tremendous suction force generated at the site of the explosion by the air rushing back to fill up the vacuum caused by the previous effect. This suction is perhaps the most destructive of all the four processes, and sides of houses may become detached and fall into the street. You may wonder how such a compensating suction force could produce a greater effect than the initial explosion. This is because buildings and houses are designed to resist positive pressure variations, such as wind, etc., from the outside, but a negative pressure acting from the outside has very little to control it and consequently enormous damage is done.

In addition to the purely destructive effect of high explosive, the noise is tremendous, and it is this noise which is one of the most potent factors in the production of panic. It might be comforting to remember that if you are present to hear the noise of a high-explosive bomb, as far as you are concerned that bomb has been harmless.

Incendiary bombs contain thermite, a mixture of aluminium powder and iron oxide. They only weigh about 3 lb. and are arranged to ignite on contact. They drop slowly through all the floors of a house, being held up on each floor for a sufficient period to start a fire on every storey, and come to rest at the bottom, a pool of white-hot molten iron.

Lastly, there is the gas bomb, and, as has been mentioned, there is some doubt whether this will be employed. Since, however, the reason why it may not be employed will be because the population has been educated to defend itself against gas, it is a most important duty to make that reason a valid one. As this is such a complicated and important question, I shall leave the consideration of gas until the end.

With regard to high-explosive bombs, it is essential to get under cover and to avoid the temptation to watch the air raid in progress from a window. The reason for this is that you should obtain protection from flying splinters and also from pieces of anti-aircraft shells as they drop. As we have seen, windows are liable to be blown in, and even the outside of houses may fall into the street. Should you be taken unawares while in the open and are not engaged in urgent work which requires you to continue with your journey, you should make for the nearest shelter. If there is no shelter nearby, it is best to lie flat on the ground on your face, up against a wall. You might argue that if buildings are going to collapse, the middle of the road would be the safest place, but not only would you be in grave danger of being run over by ambulances, fire-engines and so forth, but the force which detaches walls from their buildings is sufficient to precipitate them some distance from their base, and this site would, on the whole, be the best.

The problem of the incendiary bomb is that of fire from whatever cause. Sand or earth is the best means of extinguishing the bomb, and a supply of this should be available in every household. On no account should water be thrown on an incendiary bomb as this will cause an explosion, although water may be used to deal with the fires to which these bombs give rise.

With regard to panic, it is necessary that in the event of an emergency everyone should have something to do, and to know what that will be. For myself, I find, even in these troublous but safe hours, that it is difficult to read, and I cannot believe that in the course of an air raid I should be able to give my mind to a book. Others may be differently made, but I feel that unless we have a duty to perform, such, for instance, as attending ambulances, carrying stretchers or treating the wounded, then it would be better to get some manual work ready to do when the time of crisis arises. In the gas-proof room, which I have prepared in my own house, whilst all the essential work has been done I have purposely left un-

finished some unimportant but helpful details. Should I and my household have to take refuge in this room during an air raid, we each of us have some task to perform to make that room as comfortable, as safe and as habitable as possible. Some may care to play cards or other games in these circumstances, but the sense that you are doing something useful is, I feel, more satisfying. Community singing in public shelters sometimes helps to maintain the morale, but if it is to serve this purpose it must be kept up through thick and thin. Nothing, to my mind, would be more productive of panic than community singing which petered out from an infectious apprehension.

And now a word about catastrophes in general. I happened to have been present soon after the terrible accident which took place on the District Railway at Charing Cross in the summer. I thought at the time that this might afford a valuable lesson as to what can be done in the event of a catastrophe of this nature following an air raid. I came away with one quite definite conclusion, and that was that the two indispensable articles to be taken by the medical man to such a scene were (1) a bottle of chloroform, (2) a hypodermic syringe with a solution of morphia. The immediate extrication and first-aid treatment of multiple injuries and fractures is best done by the qualified ambulance man, who has every device at his disposal, which he knows how to use and to which he is accustomed. But there is one thing that these persons cannot do—they cannot relieve the suffering of the living or the dying, and it is here that we can be of the greatest value. Chloroform is the best form of anæsthetic to take because it is rapid in its effect, abolishing pain sensations at an early stage, and is relatively non-inflammable. Secondly, and as a general principle, I would ask you to arrange for the transport by ambulance to clearing stations first of those cases which are slightly injured and subsequently of those cases which are desperate. This may seem a brutal principle to adopt, but I can see in theory, and I have heard in practice, how many valuable lives are lost through giving precedence in matters of transport to patients whose chance of survival is problematical.

We now come to the problem of gas. The best protection from gas is a gas-proof house or gas-proof room. This room should be on the ground floor or, if there is one, in the basement. It should, if possible, be on the side of the house away from the prevailing wind. To contain five persons this room need not be more than 10 feet square and 8 feet high. Such a sized room will accommodate this number of persons for as long as twelve hours, so that these dimensions are as large as are likely to be required. Judging from the experience of Barcelona in March, the time between the sending of the warning and the " All Clear " signal will be under an hour, so that much smaller rooms can be used with safety.

In order to prepare such a room all possible cracks and orifices must be stopped. It is a good thing to use plaster for any obvious cracks in the wall. For putting round the lintel of the door I have found the rubber strips used to protect the angles of linoleum-covered stairs very useful. You can also obtain rolls of gummed paper $1\frac{1}{2}$ inches in breadth, and these may be used for blocking up cracks in windows, etc. The fireplace should be boarded up and paper pasted over the boarding. If possible, wire netting or boards should be nailed inside the window to prevent splinters of flying glass from injuring the occupants. The bare boards should be pasted over everywhere with brown paper. Keyholes may be stuffed with newspaper mashed up with water. In order to have an air-lock it is necessary to attach to the outside of the door lintel a blanket which hangs down trailing on the floor for at least a foot. This blanket is secured to the whole of the lintel on the hinged side of the door, to the whole of the roof of the lintel and quarter-way down the other side. This is presuming that the door opens inwards. On the side on which the door opens a blanket should be hung, attached above as high as possible, and draped snugly into the door. Both these blankets should be soaked in water and the inside blanket may be kept wet by further applications during the raid, as it tends to dry at the top. The wetter the blanket is the surer it is to keep closely applied to the door, besides destroying such substances as mustard gas. Gas masks should be ready available in such a room, but should not be worn unless a smell of gas is detected. This, of course, adds the risk that the high-explosive bomb may shatter the gas defences and, before the inmates are able to don their masks, they may be attacked by gas. On the whole, however, I feel that I would prefer to take this slight additional risk than stop for half an hour in such a room with a gas mask on. Unfortunately, you will not be permitted to smoke, and, of course, any form of heating must be from electric stoves, though the cooler the temperature is kept the better. Warm clothing and blankets are to be preferred to any form of heating. This is because the room eventually becomes uninhabitable not due to lack of oxygen, but to increase in humidity. The lower the temperature the less is the amount of moisture given off by each occupant, and therefore the longer the room will be habitable. The contents of such a room should consist of :—

1. Furniture, an adequate supply of water in buckets (even though water may be laid on already), respirators, buckets of sand.

2. Food in tins, plates, knives, forks, etc.

3. Chamber pot, lavatory paper, disinfectant, screen.

4. Wireless, books, newspapers, cards.

5. Blankets, warm clothing, mattresses, pillows.

6. Spare gas-proof material, planks, paper mush.

7. Supply of bleaching powder and paste, fire extinguishers.

Gum boots, oilskins, etc.

Copy of A.R.P. precautions.

We now come to the more detailed consideration of the gases which are likely to be met with. They can be divided into three main groups :—

1. Mildly irritant gases, such as tear gases and the nose irritants.

2. Lung irritant gases such as chlorine and phosgene.

3. Blister-producing gases such as mustard gas and Lewisite.

Other gases such as carbon monoxide, nitrous oxide, hydrocyanic acid and sulphuretted hydrogen might be used, but this is not likely.

Let us now consider these gases in turn.

1. *Tear Gas or Lachrymators.*—These gases, of which K.S.K., B.B.C., and C.A.P. are examples, are not poisonous in ordinary concentrations. They are used for the most part in the dispersal of recalcitrant crowds, but it is possible that they might be employed to create panic in war, although their relative harmlessness would make them rather a wasteful form of attack. The symptoms of poisoning from such gases are coryza and lacrimation, but the effect is rarely prolonged and blindness is not produced. Treatment consists in washing through the eyes with warm water or normal saline, and reassuring the patient that no more serious trouble is likely to arise.

Another example of the mildly irritant gases are the nose irritants, which produce a burning pain in the forehead, nose, face, teeth, gums, throat and upper part of the chest; possibly also attacks of sneezing and coughing. These gases go under the names of D.A. and D.M. A special feature of exposure to such gases is the marked mental depression which they produce. In spite of this alarming clinical picture, they are a source of little damage, and first-aid treatment consists in attempts to lessen the pain and discomfort, and nasal douching with warm weak sodium bicarbonate. It must be pointed out that D.A. and D.M. are not really gases, but solids in very fine suspension. Consequently it is important that top clothes should be shaken out in the open air or removed entirely before entering a gas-proof shelter. One feature of the tear and nose irritant gases must be emphasised, that is, that there is a very definite tendency for the symptoms to get worse some time after removal from the poisoned atmosphere, and it does not mean that the respirator is leaking should these symptoms come on only after the mask has been assumed. It need hardly be stated that the common respirator is completely effective against both these forms of gases.

2. Of the *Lung irritant* gases, the two most important examples are chlorine, with its familiar smell, and phosgene, which is said to smell like musty hay. These substances, as would be expected, cause intense respiratory irritation, choking, coughing, pain in the chest and cyanosis. An important feature of phosgene is that the cyanosis may appear after a period of "well-being," and may lead to a fatal issue should muscular activity be indulged in unwisely and prematurely. Cyanosis may be either of the blue type, which reacts favourably to the administration of oxygen, or the grey type, which indicates cardiac weakness and carries a graver prognosis.

The treatment of gas poisoning by lung-irritant gases is, firstly, rest and the avoidance of undue muscular exercise. All cases should be treated as stretcher cases and clothing eased so as not to impede breathing. The patient must be kept warm, particularly to avoid shivering with its consequent oxygen usage, and, as soon as cyanosis appears, venesection of 20 to 15 ounces of blood should be performed. Oxygen must be administered, and the aim is to tide the patient over the critical period of the first two or three days. No case should be got out of bed until all the symptoms of cyanosis have disappeared, but a residual bronchial or gastric disturbance should not delay the ambulatory period. The after-effects of these gases are likely to take the form of bronchopneumonia and what I might call "pseudo-neurotic" manifestations of D.A.H. and asthma.

3. Of the *Vesicants*, two—mustard gas and Lewisite—are the most likely to be encountered. Mustard gas produces no immediate symptoms of irritation of the mucous membranes or conjunctivæ unless a drop actually gets into the eye, when a mild irritation will be felt. But the vapour has a serious effect upon the skin. This effect is very similar to that of sunburn in that it produces first an erythema and later vesication. Like sunburn, it has a latent period so that immediate exposure to this material produces no effect, and it is said that a man may plunge his hand into the liquid mustard gas without any immediate irritation being felt. Further, certain persons are more susceptible

than others to the effect of mustard gas; negroes are said to be resistant, though the experience of the Italians in Abyssinia has shown that this is only a relative immunity. One of the most unpleasant properties of this material is its penetration into wood, leather, bricks, clothing and even rubber, though oilskin is a more or less adequate protection. It is only with the greatest difficulty detected by its smell, and herein lies its danger. It is said that its odour is like garlic, but it requires a sensitive nose to detect its presence in harmful concentration, and smokers are liable not to be able to appreciate it at all. The effects of mustard gas poisoning are local and no general effects are produced. It is important to know that the blisters should not be broken. Areas which have been subjected to the irritant but in which vesication has not occurred can be treated by washing in water, but if it is available the application of paste made from bleaching powder or bleach ointment is effective in neutralising the poison and in preventing burns. Lastly, the bleaching powder is never applied once the vesicles have appeared, but only to prevent their appearance.

Lewisite, the other vesicant gas, is readily detectable by its smell of geraniums. Unlike mustard gas, the vapour produces almost immediately an intolerable burning and irritation in the nose and a drop on the skin causes a severe irritation. There is not the same latent period as with mustard gas, but there may be slight delay in the onset of symptoms. Nevertheless, the blistering is more severe and comes on earlier than with mustard gas. Again, application of aqueous bleaching ointment is effective in preventing the skin burns, but bleaching ointment is of little value. In these cases the blisters should be broken because they contain arsenic.

The chart on this page will, I think, give you the essential points enabling you to make a diagnosis in a case suspected of gas poisoning.

I think that will be all that I can say at this stage. I can only end up on the same note on which I began—I hope that what I have said will never need practically to be applied and that these nightmare days will soon give place to a period when we can once more turn our attentions to pursuits compatible with human dignity, when we can repair the ravages of Nature and not try to patch up the chaos made by man.

CASES SUSPECTED OF GAS POISONING

Skin effects present.		Skin effects absent.	
Skin reddened.	Skin blistered.	Eyes affected.	Eyes not affected.
1. Slight redness only on unprotected parts. Soon disappears—*C.A.P., B.B.C.*	1. Blister filled with clear fluid surrounded by wide margin of erythema —*Mustard Gas.*	1. Symptoms appear immediately.	1. Sneezing, catarrh, salivation, pain over forehead—*Nose irritants.*
2. Clearly marked redness of scrotum, neck, armpits, chest, particularly if accompanied by conjunctivitis, laryngitis or bronchitis—*Mustard Gas, Lewisite.*	2. Blister filled with turbid fluid containing leucocytes and areas of clear skin with no surrounding erythema about the margin—*Lewisite.*	*a.* No other symptoms—*Tear Gas, C.A.P., B.B.C.*	2. Headache, giddiness, mental excitement—*Carbon Monoxide.*
		b. Accompanied by other symptoms—*Nose irritants, D.A., D.M.*	3. Rapid onset of respiratory paralysis—*Hydrocyanic Acid.*
		2. Symptoms appear later.	4. Symptoms of lung affections, rapid shallow breathing, cough, cyanosis, sputum.
		a. Unaccompanied by other symptoms—*Mustard Gas.*	*a.* Developing rapidly—*Chlorine.*
		b. Accompanied by nasal irritation—*Lewisite.*	*b.* Developing slowly —*Phosgene, Mustard Gas.*

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American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Saturday, October 16th

WOKE up to find it snowing hard. The alternative between stifling heat in hotel and theatre and frost outside is very trying. In the bedroom, closed windows mean an even temperature, a 1-inch chink means shivering.

Wasted a good deal of the morning going to St. Mary's to find a poor list, and then waiting about in the Clinic for Balfour. There I met Wilson Hey and his wife, and had a chat; I am looking forward to hearing his paper at St. Louis. Charles Mayo came in while we were there; he looks ill, but can still raise a twinkle and turn a humorous phrase.

At 10.30 I went to the Colonial. Harrington had a long list, but he was only just finishing No. 1. He has the reputation of being very careful and a great anatomist, and of doing a radical breast better than anybody. This case, sewing up, was a bad re-operated gall bladder.

2. Diaphragmatic hernia in a fat woman of middle age. Followed motor accident ten years ago. X-ray shows half stomach above diaphragm (says radiologists always report hole smaller than it is).

First takes strip of fascia lata, 1½-inch at upper end. Uses a window tube with a collar knife sliding over it, to cut lower end without need for another hole (Massie's fasciatome). A temporary left phrenic block was done Wednesday (three days ago). Opens abdomen by long 10-inch slightly oblique rectus cutting incision—the counterpart of their usual right one. He prefers

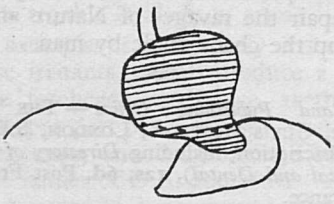

Fig. 63.

Fig. 64.

abdominal approach for all diaphragmatic herniæ; says the frequent gastric ulcer will be missed the other way, and less shock, less danger of post-operative chest troubles. For eventration, chest approach is optional, but even here he prefers abdominal except for right-sided approach.

He works way down to diaphragm, detaching left lobe of liver. Only a bit of stomach can be seen. Any number of retractors of all sizes and shapes, many home-made, and very long forceps of all sorts and scissors. Approach is a matter of lights, assistants and retractors, but patient is a bad shape for the job. Edge of opening, peritoneum covered, looks just like stomach. Slowly dissects out sac, and with it the stomach gets free and comes down easily, hernia being of sliding type with stomach in its wall. Overlaps edges of opening with silk. Threads across strip of fascia afterwards.

He says diaphragmatic herniæ are coming to light in increasing numbers. Up to 1927 there had only been about thirty at the Clinic, since then 211, of which he has operated upon about 130. Three recurrences afterwards. One reason for missing them is that they simulate other disease, for which they are often operated. When opening is small they resemble cardiospasm; as it becomes larger they get diaphragmatic symptoms suggesting gall-bladder disease; larger still the stomach goes wrong, and they get ulcer picture; when very large, heart embarrassment leading to diagnosis of angina.

Theatre floor lino. tiles Walls look like marble, but are also lino, painted above. Looks very clean and tidy. Nurse sticks strip of strapping on wall, and beside it a pencil on an elastic. This is her slate for swabs, hot-water bottles, etc.

The anæsthetists I have commented upon. They are nurses, picked for ability, and trained some time. Called "anæsthetic technicians." They can stay as long as they like. In each hospital a qualified anæsthetist is on call in case of difficulty.

I had to miss the third case, carcinoma of breast, as Balfour had asked me to lunch. Douglas, a niece of Balfour's, a young Canadian research Fellow and his wife. We drive after lunch to Balfour's farm, about ten miles away—a nice rough place, electrically run. The whole party was listening to a football commentary, a very emotional effort, but a pain in the neck to me. Back to the Kahler at 4 p.m., before coming in Balfour took me into the museum opposite. This is the old school to which the Mayo brothers went as kids. It is now a medical and surgical museum for the

public, but what an exhibition! Wax models of all the steps of operation for appendicitis, gastric ulcer, cerebral tumour, diaphragmatic hernia, and so on. Coloured charts of sympathectomy for Raynaud's; figures of mortality for all sorts of things; specimens of gastric ulcer and gastric cancer. They certainly mean to educate the public. I hope to have a quiet look round before I leave Rochester.

Tuesday, 19th October

Written in the train to Chicago, which will explain bad handwriting and a lapse from the day-to-day entry. Balfour, who has been most delightful, either looking after me himself or popping in, or ringing up, or sending a secretary or junior several times a day to see that I was properly employed, that I had been introduced to all the men that I was seeing, and that I knew of all coming events—at last persuaded me to give a Mayo Foundation lecture on Monday evening. He was so kind, and was so enthusiastic about "Grains and Scruples," which he had read when they came out and now read again, together with "Clinical Surgery," that I could not refuse. They are supposed to be informal, but my attempts at informal chats are a complete frost, and I knew that if I got up to chat before an audience composed largely of young men each of whom know all that was known in the world about some particular bit of surgery, plus what he had contributed himself, I should get quite speechless. My only alternative was to work up some old clinical lectures into a talk for an adult audience, rewrite a lot of it, and get some lantern slides. I got Balfour's secretary, a very charming and efficient young lady, to get the art department on to photographing the figures together with some from my chapter in Maingot, and make slides. I had to spend most of Sunday and Monday writing, rewriting and correcting, and did this late on Sunday with the usual result that I did not sleep at all, and Monday's work was doubly difficult. However, the lecture went well. But as the result, Sunday and Monday were poor days for the hospitals, and the notes are on scattered bits which I must now try to put together.

To return to Saturday. I went up to my room and sat down to work, and was there two hours later with no obvious result. So when Balfour rang up and asked me to supper and the pictures I was glad to break off. Supper was at home, where only Mrs. Balfour, a nurse and a boy of twelve are the family now. There are two elder sons studying medicine. I had heard that Balfour was ill and out of things. It is true in the sense that after a breakdown compelling six months' rest he has abandoned surgery. But he looks the picture of health, and is as full of life and energy as two normal men, and, though I know he is an excellent surgeon, it seems to me he would have had to be where he is in any case. There is certainly no need for him in the operating theatres. They have a team of ten general surgeons, all of whom would come within the first 100 in any marking system, men who can tackle anything and who are young and fit. They have any number of specialists, and if they need more they have this body of Fellows from every country, all picked men and all secretly hoping to be taken on. But for general direction of policy, co-ordination of departments, links with the University of Minnesota, and so on, the kind of work Balfour is doing, I cannot see how he could be allowed to drop it for mere operations. That seems to me the one difficult thing in an organisation of this sort, to find the master minds. Will is still the King, but he is an old man now. Balfour seems to do most of the actual direction, but it is very difficult to judge how much he is following the example and fortified by the presence of W. J., his father-in-law, whom he adores, as indeed they all do.

To return to the museum, and educating the public. This seems to be a fundamental idea of Mayo medicine, an admirable one that is surely merely anticipating what we shall all have to do, and an entirely altruistic one, for its object is to teach patients, who might stay weeks for treatment, to do it for themselves at home, and to give them the knowledge that will prevent them wasting their money on patent medicines, quack doctors and doctor quacks, and incidentally make further visits to the Clinic less likely. I mentioned before the course of instruction that is given to patients with thrombo-angiitis obliterans. They have similar courses for many things, whose object is to teach the patient "to live with his disease," not to expect too much and not to be despondent. In their arthritis clinic, they have compiled a list of all the questions the patients ask, and from these have worked up a series of five lectures on the disease, with slides, specimens, cinemas, and so on. They teach them the value of heat and drugs; show the wife how to move and massage; go into the home surroundings and work up simple methods of applying heat, suitable for gas, electricity, or even oil lamps—pads, paraffin baths, sand cradles, and so on. They tell them the progress to expect, and the way to avoid stiffness in bad positions.

In gastric ulcer they have the same idea, with instructions in a diet kitchen. Most of the teaching is done by nurses, dieticians, welfare workers.

On Sunday, October 17th, I went by appointment to see Bargen, the colitis expert, at St. Mary's. He chose Sunday as he starts his round at 9

instead of 8, and makes it a shorter one. He is short, apparently of German stock, quite young, and, like all these men, exactly right with patients.

His great thing is a specific serum against ulcerative colitis. Rosenow has grown a specific short two- or four-chain streptococcus viridans from swabs at edge of ulcers. This same streptococcus has been recovered from cavities in carious teeth and crypts in tonsils. They have packed cavities in dogs' teeth with this streptococcus and sealed them over, and got ulcerative colitis twelve months later. In reply to my scepticism about Rosenow's specific streptococcus, he said he thought that the fact that dogs never otherwise got the disease, and the long interval, seemed to prove this was the right track. Colitis patients often improve following tonsillectomy, after a preliminary exacerbation. The serum is prepared from horses, and is sold by Parke, Davis. Given twice a week, intramuscularly in increasing doses.

I asked about other factors; he said no very obvious ones. It starts at any age, not necessarily in nervous types, but quite often in "dumb farmers." Most important to remember that "colitis" is a menagerie category, and the serum is only good for one specific disease, and that even in this there are other factors beside bacterial toxins—anæmia, deficiency from the inadequate diet, and so on. There are at any rate four groups to be pulled apart:—

1. "Irritable bowels," otherwise mucous colitis. Usually large nervous element; often abuse of purgatives and wash-outs; all tests negative; sigmoidoscope, no ulcers; no specific organism.

2. Familial or hereditary polyposis, with secondary infection.

3. Regional colitis—often with distal colon normal. Thinks these are a different pathology. Advise surgery if persistent.

4. True ulcerative colitis. Specific streptococcus. Starts in rectum and works up ascending colon; ultimately involves ileum.

Going round he showed some X-rays of "cured" case with the previous one. The colon is scarred and narrowed, but disease is dead; ulcers seen through sigmoidoscope as scarred patches. Very definite tendency to recurrence.

He uses Karajel, made by Weller-Sater Corporation (?), Pasadena, California. A powder of an adsorbent gum. Sole action is mechanical, to make stools less fluid, but he thinks it is preferable to bismuth or Kaolin.

Vitamin C deficiency is important. They test for Vitamin C in blood, and always give vitamins.

Using wash-outs and injections very little. Sometimes starch enemas, but stop them if they cause distress.

The disease is not contagious, infectious or inherited. Surgery is indicated (1) in the segmental type if it does not improve; particularly so where there is a healthy sigmoid. Then ileosigmoidostomy followed by resection is very satisfactory. (2) For polyposis. (3) For complications such as stricture, in ulcerative colitis. (4) Very, very rarely an ileostomy. Only for desperate cases that seem otherwise certain to die. Ileostomy in true ulcerative colitis is permanent, as the rectum is the most affected part.

Diet in ulcerative colitis—low residue, 2,000 calories, high protein, high vitamins. Small transfusions given to most of them rather than big.

Saw a case of intestinal obstruction just admitted. Three days' complete constipation in spite of repeated doses of castor oil. Woman blown up like a ball, but very fit. Almost certainly sigmoid carcinoma. X-ray (plain) shows huge colon. Treatment:—

1. Nothing by mouth.
2. Hot boracic fomentations to abdomen.
3. Hot saline enemas every four hours, *in the knee-chest position.* (He laid stress on this.)

Saw Miculicz of Pemberton's. He sews the loop well together; is afraid of nipping loop of small intestine.

Case of Dixon's had excellent dodge. This was a duodenal fistula, digesting the skin. They had made a bowl round it of Kaolin water paste,

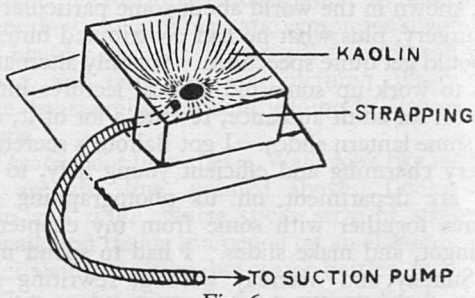

Fig. 65.

walled in with strapping, the cone close round the hole, and a rubber tube going through the paste. Various oils tried with Kaolin had been digested.

The rest of Sunday was spent on the paper. For others the week-end was spent "hunting." Hunting is what they call our shooting, but it is a weird version. Apparently preserving or stocking is not allowed, and game may not be sold, therefore nobody expects to get a large amount or really wants to. Close seasons depend on the judgment of the local game warden, and vary with the plenty of each species; thus this year is bad for pheasants, so the season is only *three days.* Then apparently you shoot wherever you like; the farmers do not mind as long as you ask nicely. Douglas went out hunting to-day with a friend and an Irish terrier and got nine pheasants.

Gas: An Introduction to Reality

From a Paper read to the Physical Society in March, 1937, by T. Hugh Shire, Esq., B.M., B.Ch.

MR. CHAIRMAN and GENTLEMEN,—It is a distressing commentary on our Age that a discussion on chemical warfare should be a necessity in medical schools, occupying time which could much better be spent in studying unavoidable disease; that there is a need for it the headlines in the daily papers have clearly demonstrated. The urgency of the matter must be my excuse for introducing a political flavour to what should be a strictly scientific Society; as doctors, our relations with the body politic become increasingly important and close—a self-denying ordinance to avoid politics is to deny ourselves the right to discuss the humanities.

Gas warfare should strictly be described as chemical warfare because few of the materials used are gases, but the word has acquired a popular, if unwelcome, significance and we shall adhere to it in the broadest sense in this paper. It is no new thing to use gas; Chinese and Malay pirates have used "stink-bombs" for centuries. Our ingenious contemporary military tacticians are therefore following in a noble tradition, and it required the year 1915 to be reached before Europeans could bring themselves to return to habits of our remote ancestors.

In the Crimean War, indeed, Lord Dundonald suggested burning 400-500 tons of sulphur so as to smoke out the Redan and Malakoff redoubts during the siege of Sebastopol, but this was received with such evident horror that the idea was dropped and took 58 years to re-emerge. The British General Staff received intelligence that the Germans intended to use gas, but considered it so unlikely that when Professor Haber launched his attack with chlorine gas on the 22nd April, 1915, near Ypres, the effect was enormous as regards its casualty producing and demoralising power; the whole division was wiped out, and in view of the complete lack of protection this is not surprising; the proportion of deaths was higher than in any other attack during the war.

Let us now consider the conditions which led up to this contravention of the Hague Declarations and Conventions of 1899 and 1907. The contracting parties did not all sign or ratify the Convention, but the exceptions were China, Sweden, Norway, Switzerland, Turkey and the U.S.A.; they were certainly not interested in the "gas" war of 1914-1918 with the exception of Turkey and the U.S.A. later in the war. The facts are these: Military strategy is not and will not be bound by humanitarian considerations—the element of surprise came foremost in 1915, but the munitions were badly handled, or the war could possibly have been won outright there and then. More important was the question of supply of material; the highly developed German dye industry used many of these chemicals as intermediate reagents in normal manufacture; the material was at hand in enormous quantity; Haber's synthesis of ammonia from air was not yet working on an adequate scale; the supply of nitric acid for high explosive was running short. A substitute munition might become a necessity—why not start at once? Such a step once taken was irretraceable because the Allies promptly retaliated. The third element is one which applies more to future wars than to the past one, and that is the development of the aeroplane. By this means a machine carrying many tons of lethal chemicals can attack the civilian population and endeavour to destroy lines of communication, munition factories, arsenals and power stations, and generally create disorganisation to which modern armies are so sensitive because of their complexity and size. Further, a demoralised civilian population will sue for peace long before an army knows that it is beaten.

The Treaty of Versailles forbade Germany from manufacturing poison gas. Nothing more absurd was ever inserted in a document of such importance; phosgene is an essential material in the manufacture of indigo, and Germany was not forbidden to manufacture dyestuffs. She was also forbidden to manufacture war-planes, but, as Lord Halsbury wrote in the *Daily Mail* in 1927, "Limitation of armaments is meaningless as long as the manufacture of commercial aeroplanes is unlimited." It is clear then that prohibition of this kind is ineffective for no country has been restricting its output of commercial planes, least of all Germany.

What is the probability of our being called upon as doctors to deal with the emergencies created by gas warfare? The signs, I am afraid, point all towards the affirmative; the Government is laying up stores of gas-marks; expenditure on aeroplanes by foreign governments reaches astronomical figures—in 1930 there were said to be 15,000 fighting machines in Europe, of which 25 per cent. were bombers. Lord Londonderry not long ago made his historic remark in the House of Lords after attending a Disarmament

Conference: "With difficulty I preserved the bomber." The late Lord Thomson and Brigadier General Grover admitted that air defence manœuvres over London were quite ineffective, and that reprisals were more important. General Sir Philip Chetwode wrote in the *Royal United Services Journal* (August, 1926): "While the enemy throws his bombs on London, which can be evacuated quickly and systematically, the English air fleet must throw itself upon the hostile air stations with inconceivable rapidity." But can London be evacuated quickly and systematically? And German air-stations are now being built underground. Can we doubt that open towns will be military objectives? We must therefore learn something of the nature of gas warfare and its consequences; to be heroic pacifists and do nothing is to be like an ostrich sticking its head in a gas oven and hoping the gas will not be fatal this time. Mark you, in a world as barbaric as this there is much to be said for a nice, clean, rapid death from delayed pulmonary œdema.

THE PHYSICS OF GAS WARFARE

Gas to be effective must reach a toxic concentration for a minimum time dependent on its physiological properties; if this concentration or time is exceeded, the result may be lethal. True gases may have a density greater or less than air; the latter will clearly be useless as they will disperse rapidly into the upper atmosphere; dense gases if entirely gaseous will be at the mercy of wind, sun and in most cases rain; wind and sun disperses them rapidly and moisture decomposes or converts some such as chlorine and phosgene into less toxic substances. Such gases are dangerous only in still, dry weather or in pits, hollows, basements of houses and similar deep places. They are described as being non-persistent; examples are hydrocyanic acid, sulphuretted hydrogen, chlorine, phosgene.

Persistent gases are really vapours given off from solids or liquids; so long as there is solid or liquid left, so long will vapour be given off. Such "gases" are clearly more lasting; the concentration will depend upon the amount of solid or liquid present, its vapour pressure and the temperature—the higher the temperature the greater the vapour pressure. Such persistent gas, of course, becomes subject to wind and other atmospheric conditions, and is, in fact, then non-persistent, but the presence of solid or liquid splashes from shells or bombs makes it persist longer. This was soon appreciated in the last war because they abandoned cloud-glas attacks with chlorine from steel cylinders for shells containing gas or simply canisters projected by a small charge from trench mortars, Stokes' guns or other similar machines. The enormous work involved in carrying steel cylinders also militated against their use. Another type consists of a fine dispersion of a toxic solid in powder form liberated by the explosion of a shell or bomb with a small bursting charge. This will have the properties of a non-persistent gas. There is one other kind of gas to be mentioned and that is smoke-gas, used purely as a screen; it consists of particles in such a fine state of division as to be easily suspended in the air in dense clouds; the most commonly used is phosphorus pentoxide (P_2O_5) by burning white phosphorus with zinc chloride. These are non-toxic as a rule, but may be used as a screen for more toxic gases.

From what has been said of the physical properties of these vapours the gases at ordinary temperatures such as hydrocyanic acid, chlorine, carbon monoxide, arseniuretted hydrogen, hydrogen sulphide, have very little use as weapons once the surprise element has disappeared, and gas masks were, in fact, soon devised to be effective against them. Wind and rain did the rest. Not so, however, with the vapours derived from liquids such as mustard gas; the vapour pressure is low, the rate of vaporisation is slow and the area contaminated will remain so for a long time, up to three weeks in enclosed places, unless decontamination is performed. There is one other property of this vapour to which reference will be made later, viz., its solubility in oils and fats.

We may expect, then, to have used against us (1) toxic gas, including suspensions of toxic powder, which will only be dangerous to those near to the explosion liberating it or in confined spaces; (2) toxic solid or liquid contaminating by its presence and slow vaporisation; (3) non-toxic smoke screens. Or a mixture of any of these three types.

The purpose of gas may be described:—

1. To produce casualties: this is only possible by high concentration, *i.e.*, a direct hit or sudden concentration by bombardment before gas-masks can be applied. The non-persistent gases are the most lethal. Persistent gases produce disablement and contamination, but are rarely lethal. Mustard gas only produced about 2 per cent. deaths, but it sent enormous numbers back for decontamination or as slight casualties who were invalided for months.

2. Concealment of troop movements by smoke screens.

3. Destroy morale by harassing troops who have to wear uncomfortable masks for hours.

4. Damage material—especially phosgene and chlorine, which corrode metal, and arsenic, which poisons water and food.

The type of toxic gas used may be roughly classified according to the physiological reaction. This is usually complex ; the simplest classification is :—

1. Pulmonary irritants, *e.g.*, chlorine, phosgene, chlorpicrin, palite (tri-chlor-methyl-chloroformate).
2. Vesicants or blistering gases : mustard gas and Lewisite.
3. Lachrymators, *e.g.*, chloracetophenone,brombenzyl-cyanide.
4. Irritant gases or sternutators, *e.g.*, organic arsenicals.
5. Cell toxins, *e.g.*, HCN.
6. Blood toxins, *e.g.*, H_2S, AsH_3, CO.

Groups 5 and 6, *i.e.*, HCN and H_2S, AsH_3, CO, are of no importance in warfare from the point of view of this paper. They are clearly important if called upon to deal with submarine, mine or tank casualties.

1. Lung irritants: Cl_2, $COCl_2$, CCl_3NO_2, palite. These gases cause intense irritation of the alveoli of the lung with outpouring of serum. In fact, the lung capillaries appear to become permeable to the blood plasma and the rapid diminution of the aerating area of the lung produces intense cyanosis and symptoms of pulmonary œdema. It is from this that most patients die ; those that survive have to pass through a second danger with some of these irritants ; the damage to the epithelium of the respiratory tract exposes the lung to rapid development of bronchial or broncho-pneumonic infection. If they survive this, there is always ultimate risk of chronic fibrosis of the lung, bronchiectasis, abscess and gangrene formation, but, curiously enough, there is no evidence of tuberculous infection developing.

These lung irritants differ in the rapidity of their action, and consequently in their symptomatology. Chlorine irritates the upper respiratory passages at once and produces in severe cases almost instantaneous asphyxia from destruction of the lung tissue which is unable to expand from loss of its elasticity ; smaller doses produce pulmonary œdema in any time up to 48 hours. Phosgene, on the other hand, is more insidious, and a man may carry on for some time after inhaling a large toxic dose, only to fall dead suddenly from massive pulmonary œdema. It has therefore become customary to talk of acute cases with violent onset and acute cases with insidious onset. Chronic disease never occurred in military operations, but did so in civil practice in munition and chemical factories. The symptoms are somewhat different, and do not immediately concern us here, being more a public health question.

In view of the insidious onset, it is practice to treat all cases of Cl_2 and phosgene and chlorpicrin poisoning as stretcher cases.

The symptoms of Cl_2 poisoning are rapid breathing, pain on breathing, especially epigastric and substernal, a sense of restriction, coughing, retching, gasping for air. With chlorpicrin this is liable to include rapid irregular heart action, muscular weakness and intense lachrymation. Phosgene and trichlormethylchloroformate or "Palite" do not irritate the upper respiratory passages, but produce the insidious delayed pulmonary œdema mentioned already. All are lachrymator gases to some extent.

The pathology of lung irritants possesses certain features common to them all : the lungs in fatal early cases with pulmonary œdema are distended, airless and on section full of œdema. With this there is normally engorgement of veins, liver, kidneys and right side of the heart ; the pulmonary œdema is due to reflex capillary dilatation through sensory nerve endings and direct toxic action on the alveolar epithelium, so that the blood plasma pours out to flood the alveoli and produce anoxæmia, congestion and failure. The failure is accentuated by an increase in the viscosity of the blood due to loss of plasma ; the consequent polycythæmia is a feature which can be measured for prognosis, a rising blood count being bad, a fall being a good sign. Inflammation of the trachea and bronchi and conjunctivitis are present in chlorine and chlorpicrin, but not in phosgene and palite poisoning. With phosgene there is slight inflammation of the bronchioles, while the bronchi and trachea escape; in chlorine and chlorpicrin poisoning there may be such necrosis of the upper respiratory epithelium as to lead to false membrane and slough formation. Secondary infection is common following chlorine and chlorpicrin poisoning ; it is uncommon with phosgene. Phosgene, it is seen, acts more slowly and only therefore produces damage when chemical irritation occurs in the depths of the lung, hence the delayed onset of pulmonary œdema and its sudden fatal effects ; in chlorine and chlorpicrin poisoning the irritation is more immediate, with more immediate results. This is shown well by the mortality curves ; most chlorine and chlorpicrin deaths occur within 48 hours ; most phosgene deaths are spread over the second to eighth days or longer.

Clinically two types present, viz., the blue and grey types. The first shows deep cyanosis, rapid and shallow respiration, full strong pulse and temperature 101° or so. The grey type has grey cyanotic extremities, rapid shallow pulse up to 130 or more, breathing rapidly, producing frothy sputum and with alæ nasi working hard. The

first type is anoxæmic and congested; the second is anoxæmic with circulatory failure from shock or collapse from respiratory failure. The treatment is clearly different: the blue cyanosed patient is given rest, warmth, O_2 and, above all, venesections of 20 ounces of blood—venesection is to pulmonary œdema what ligature is to a bleeding artery. This last is the most important measure, as it relieves the cardiac congestion and, by diluting the blood with tissue fluid, aids in reducing the pulmonary œdema. Isotonic saline and gum have been recommended after venesection—it appears to me that hypertonic saline would be better. The Americans advise intravenous urease to neutralise the acid formed by the gas; they also give 1 gr. of emetine, which is said to constrict pulmonary capillaries and diminish the œdema; 2—3 litres O_2/min. must be given by nasal catheter. Morphia is contra-indicated for its depressing effect on the respiratory centre. Inhalation of antidotes such as NH_3 are contra-indicated either as useless or injurious, but ether is used in capsules as a placebo to make the patient feel more happy about his treatment. Fluids are allowed such as tea, coffee, to allay thirst and stimulate; brandy, pituitrin, camphor may be used as stimulants; aspirin and phenacetin are curiously enough forbidden for the headache because of an alleged action on the heart. Atropine is useless for the bronchial secretion; postural drainage aids here with expectorants once the œdematous cyanotic stage is passed. No suspected case should ever be allowed to walk to hospital or first-aid post, and in view of the insidious nature of phosgene poisoning and its late onset, even apparently slightly affected persons must be treated as stretcher cases. An interesting point in diagnosis is that gassed patients will refuse cigarettes and tobacco; malingerers will smoke.

For the grey collapsed case seen so frequently in phosgene poisoning give stimulants, warmth, O_2+CO_2, but no venesection, because this increases the collapse and there is no right-sided congestion of the heart.

In all cases of pulmonary irritant poisoning care must be taken to prevent cross-infection or serious broncho-pneumonia is liable to spread through a ward.

The pathological physiology is interesting. There is no general toxic action remote from the lungs because (1) no transmissible toxin has been demonstrated, (2) gas led experimentally into one lung of animals only affects that lung, and (3) intravenous injection of these toxins in comparable doses is harmless. The hæmorrhages found microscopically are due to anoxæmia. The rapid shallow breathing is a vagal effect, being an exaggeration of the normal Hering-Breuer reflex, since it is abolished in animals by cutting the vagus nerves. The increased viscosity of the blood is demonstrable. The relative toxicity for thirty minutes exposure is Cl_2: CCl_3NO_2: $COCl_2$ $=3 : 0.8 : 0.36$ mgm. litre.

2. Vesicant or blistering gases, *e.g.*, mustard gas and Lewisite. The first is a colourless oily liquid with a faint smell of mustard or garlic; if impure it may be sherry-coloured. Extensive research shows it to be a specific toxin. It does not act by chemical decomposition when it reacts with living cells. It is soluble in lipoids, especially the normal sebacious secretion of the epidermis; it is lethal in a dose of 0.006 to 0.2 mgm. litre, according to length of exposure. It is toxic in concentrations not detectable by smell; it penetrates all ordinary clothing; it can be carried about on boots or clothing to contaminate distant clothes or people; it is persistent with delayed action, and its action can be compared entirely to a severe burn. The stages of erythema, vesication, superficial and deep dermal necrosis all appear in turn after an interval which may be up to six or eight hours. Catarrhal conjunctivitis leading to a purulent conjunctivitis follows on exposure to the vapour, and this may lead to corneal scarring. Inhalation produces sloughing and a false membrane of the trachea and bronchi; the lungs show pneumonic consolidation of non-specific type with enormous engorgement in fatal cases. Any lesion due to mustard gas shows an increased tendency to subsequent secondary infection.

Clinically the case will depend on length and degree of exposure; the mildest cases show an erythema of the skin, hoarseness of voice and lachrymation; these may after three days develop broncho-pneumonia, and so must be watched very carefully. The more severe cases develop pyrexia, cough, aphonia, anorexia, abdominal pain, lachrymation with dripping eyes and blepharospasm and photophobia. The most severe cases always have seriously necrotic septic areas or stenosed bronchi with pneumonia—and always die.

Treatment.—Wipe off the oil rapidly and rub in hot soap water or spirit soap; this often prevents the mustard from penetrating deeply. Kerosene is the best solvent, but petrolatum, olive oil and lubricating oils will do. Lengthy rubbing is recommended. Dry bleaching powder is used for destroying mustard gas, in streets and on contaminated clothes or articles, but should be applied as a paste or as Dakins' solution to skin.

Skin.—Should be smeared with an unguentum such as acid boric, zinc oxide, or with starch or chalk. Puncture blebs and apply Lassar paste.

For sepsis, use Eusol, Dakins', and boric fomentations.

Eyes should be douched *ad lib.* with oil, soda bicarbonate solution 2 per cent., normal saline or boric acid solution. No bandage should be applied, to permit free drainage, and paraffin should be instilled to prevent the lids glueing together. Atropine 1 per cent. ointment can be used for blepharospasm, and argyrol or protargol for muco-purulent discharge. Hot fomentation is valuable when frequently applied in preventing ulceration.

Nose should be douched with 5 per cent. soda bicarbonate or zinc sulphate and boric acid. Laryngitis is best treated by inhaling menthol or tincture benzoin composition. The French attach great importance to the use of gomenol oil, which is injected through a laryngeal tube or even through the crico-thyroid membrane. Fluids should be taken in large amounts.

Protection is only possible by using completely impregnated clothes and the U.S.A. use material called " Impregnite." It is difficult to wear for long, because all perspiration is retained. Heavy oilskins and leather gloves soaked in oil are said to be effective ; rubber boots must be worn.

Lewisite, about which we have been much frightened, is certainly more deadly than mustard gas, the lethal dose being about 1.4 c.c. if untreated. It is, however, hydrolised by aqueous vapour, and if treated by ferric hydrate paste or 5 per cent. caustic soda at once, little harm follows. It is a sensory irritant, producing vomiting, retching and salivation ; conjunctivitis and bronchitis follows on damage to the epithelium of eyes and lungs, and broncho-pneumonia is a sequel. These results occur in dogs. The blisters formed on the skin contain arsenic and must therefore be pricked. If sprayed from the air it would certainly be a formidable toxin, and it will be necessary not only to neutralise burns with FeOH paste, but to excise them. This can be done on animals up to twelve hours. The paste prevents blistering.

3. Lachrymators, *e.g.*, benzyl bromide and o.-acetophenon produce most profuse lachrymation, but no after-effects, and the effect wears off in a few moments in fresh air.

4. The toxic arsenicals produce some nervous lesions, but they are transitory in effect.

The other gases have no war-time value.

Mortality from these gases are hard to evaluate accurately, but the U.S.A. official report says that 224,000 casualties in the U.S.A. army were sustained ; 70,500 were due to gas, and the mortality from this was less than 2 per cent.

In the British army the mortality was also of the order of 2 per cent. as against 8 per cent. from shot and shell. Mustard gas has a mortality of a little over 2 per cent.

DEFENCE

Gas masks consisting of a canister containing lime, sodium permanganate and animal charcoal in a finely divided state through which air is breathed into an airtight mask with a non-return expiratory valve constitutes the safest instrument yet designed, but they will not stand long exposure or exposure to very high concentrations. They are safe against a concentration of 1 per cent. $COCl_2$. Cellulose filters are inserted to absorb particulate toxins such as organic arsenicals or stannous chloride.

During the war, dug-outs were rendered gas-proof by using blankets steeped in heavy oil at the entrance to form an airlock when entering ; air was pumped in by a small fan through a canister as fitted on gas masks. Dry bleaching powder at the entrance prevented contamination with mustard. After contamination a lighted fire soon cleared the gas out through the roof by ventilation.

For this to work in a house it would be necessary for every crack to be stopped up and air pumped in. In the event of damage to the supply of electricity the outlook would be serious. But the most serious feature is that the attack is on enclosed spaces from which there is no escape. We cannot even contemplate a small proportion of London's population moving out. First the roads would be blocked by débris and shell-holes ; then the numbers would add to the confusion ; lastly, as large areas would be contaminated with Lewisite and mustard gas, no cars would be allowed to contaminate more fortunate places, even if they could move. The next war is certain to produce a mixture of incendiary, explosive and gas bombing as a daily, nay hourly, occurrence, and the magnitude of the task of defending us *all* is probably beyond us. In recent air manœuvres 80 per cent. of attacking machines got through. The R.A.F. as good as admit that there is no defence ; if defence is our only reason for spending astronomical sums, why should we be building so many bombing squadrons ? And through it all we hear of constant improvements in the lethal power of the new gases, so that we still do not know what we are up against.

If it is really beyond the wit of man to abolish these horrors we do not deserve to survive, and we shall certainly deserve what is coming to us.

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Correspondence

The Crisis

To the Editor of the GAZETTE

SIR,—Everyone seems to have forgotten Agadir, and yet we must work very hard for months, and perhaps for years, to ensure that this crisis is not such another one.

To do so we must gain the confidence of those whose enemies we were and have so nearly been again, and for this we must begin to trust them. We might start by asking ourselves whether everything that we have done since the Armistice is as right and proper as at the time it seemed to us to be.

In this way each one of us may do something to see that an Agadir crisis shall not be followed by a second August, 1914.

Yours, etc.,

T. B. LAYTON.

Guy's Hospital,
S.E.1.

Ward Services

To the Editor of the GAZETTE

SIR,—A month ago you asked in "Passim": "Is the contemplation of the End and Afterwards really a very good thing?" Whether a good thing or not, we all recently had these things in mind. "Hope, faith and strength of mind" do indeed come, as you assert, from a study of the Authorised Version—but thus also comes clear teaching on the two destinies of man. The lay preachers take their services in difficult surroundings when activity in the wards is by no means minimal.

They do not only preach Hell, but also the means of Salvation. They do not only bewail the fallen state of man, but proclaim the way of victory. What more fitting message could they bring to those "on the banks of the Styx"?

Yours, etc.,

H. F. LUNN.

Guy's Hospital, S.E.1.

Student Accommodation

To the Editor of the GAZETTE

SIR,—In my letter to you in the issue of August 27th, I stated that "it is only a few years ago that a company was started to enable those not blessed with too much available ready cash to buy their practices."

This statement suggests that there were no other companies doing this previously. It has been pointed out to me that the Medical Sickness Annuity and Life Assurance Society has been doing similar work for a very much longer period, and that that society, being a purely medical body, would be the most appropriate institution to approach for assistance towards a new College.

Yours, etc.,

R. E. SMITH.

3, Horton Crescent,
Rugby.

Sport

Rugby

Guy's v. Neath

GUY'S opened the season on Saturday, September 17th, with two first-team fixtures—one at Neath and the other against Catford Bridge at Honor Oak Park.

Most of last season's First Fifteen were included in the team which visited Neath, and after a very interesting game the home side won by a placed goal, a dropped goal and 2 tries (15 points) to a placed goal and a penalty goal (8 points).

Several familiar faces were missing from the Hospital fifteen, including E. S. Nicholson, H. H. Crabb, and R. D. Allen (all working for examinations), and J. P. Crawford.

J. M. Hanson, who broke the 100 yards' record at the University of London Sports this year,

came into the three-quarter line on the left wing, and the only newcomer was A. E. M. Wiggins, a back-row forward from Cambridge.

It was a creditable performance to run Neath so close, as they are one of the strongest sides in South Wales and extremely difficult to beat on their own ground.

Immediately on arrival the Hospital were entertained to lunch by the Neath officials, and afterwards were given a splendid reception by the crowd who braved the weather conditions.

It was a thrilling game, and the result was in doubt up to five minutes from time, when W. E. Jones dropped a goal which made victory for Neath certain.

From the kick-off the Neath forwards found a footing in the Hospital's 25, and before the spectators had settled down to watch the game the home team registered an unconverted try. McCarley, the Welsh International, played a prominent part in the movement which led to the score; he started a round of passing between W. E. Jones and W. T. Davies, which ended in W. T. Jones scoring in the corner.

However, Guy's drew level almost immediately. From the kick-off the Hospital attacked, and fine work by Dick nearly caught the home defence napping. Eventually Guy's were awarded a penalty and Plowman made no mistake with a kick which was not too easy.

The heavy Neath forwards were getting the ball in most of the set scrums, but their backs were not allowed to make much progress. The Hospital back division tackled magnificently, and Dick and Steytler in particular were excellent.

Halamandres and Steytler had a fine understanding at half-back, and time after time set the three-quarter line moving. Dick was in great form, and his spectacular runs were thrilling to watch. However, a forward rush by the Neath forwards led to another try by W. Davis, and W. E. Jones converted.

A little later Guy's drew level again when Dick broke away from his own 25 and started a grand movement between the backs, which ended in Steytler scoring a great try, to which Plowman added the goal points.

Near the interval Guy's had a narrow escape when McCarley accepted a pass from W. L. Thomas, broke through, and appeared certain to score. However, he was tackled near the line, the ball went loose, and Plowman just won the race for the touch-down.

With the wind in their favour, Neath started the second half with a terrific forward rush which carried them to the Hospital goal-line. W. T. Jones made a splendid attempt to cross, but was held up on the line, and a little later W. L. Thomas lost the ball when he was about to score.

Guy's retaliated, and Van Steytler, Babrow and Dick combined cleverly in a glorious passing movement which broke down in Neath's 25.

J. Thomas managed to clear, and eventually he started a movement which ended in Grattan crossing in the corner for an unconverted try.

Both sides attacked in turn and the battle raged from one end of the field to the other; on several occasions Guy's opened up the game and some of their movements were a delight to watch.

Although Neath lost one of their forwards ten minutes from the end, they managed to carry play to the Hospital's 25, and, following a loose scrum, Thomas sent out a perfect pass to W. E. Jones, who dropped a goal just before time.

It was a splendid game, fought out at a hard pace, and Guy's have every reason to be satisfied with their first game of the season.

Team.—R. D. Plowman; J. M. Hanson, L. Babrow, R. C. S. Dick, R. U. F. Kynaston; J. van A. Steytler, C. Halamandres; D. H. Fuller, R. M. Sharpe, J. P. Rochford, A. Forbes, P. Fletcher, C. S. Darke, P. D'O. Kolesar, A. E. M. Wiggins.

Guy's v. Catford Bridge

AT Honor Oak Park on Saturday, September 17th, the Extra First Fifteen, consisting of "A" Team players, sprung a big surprise when they defeated Catford Bridge by 5 tries (15 points) to a placed goal and a try (8 points).

In the first half, Guy's had the sun in their eyes and had to face a stiff breeze. However, after Catford had threatened to monopolise the game, they settled down and held their own until the change of ends. Then the Hospital took full advantage of the wind, and by judicious kicking and well-executed passing movements, kept the visitors on the defensive for the rest of the match.

Credit must be given to the Hospital forwards, who stood up to the experienced and heavier pack and eventually wore down their opponents until they obtained the mastery, both in the loose and set scrums.

One of the features of this game was the excellent display given by the back division, in which Breen-Turner, Birks, Gartrell and Camp were outstanding.

Time after time this combination threatened danger, and most of the scoring was achieved as the result of their efforts.

In the first few minutes Catford Bridge bombarded the Hospital line, and their efforts were rewarded when Herbert slipped away from a loose

scrum and scored near the posts, for Spray to convert.

Guy's retaliated with a glorious three-quarter movement started by Gartrell, which was carried on by Breen-Turner, Birks and Camp, but a forward pass spoilt a certain try.

Davey, the visitors' fly-half, was the most dangerous man on the field, and on one occasion he went clean through the defence, but, luckily for the Hospital, his final pass was forward.

Birks retrieved an awkward situation when the visitors pressed hard in Guy's 25, and finally he sent Breen-Turner and Camp away for a fine run which was stopped by Down only a yard from the line.

Guy's continued to press, and after Vidot had made a fine attempt to cross, Gartrell set the threes in action and Breen-Turner carved out an opening for Camp, who scored an unconverted try in the corner.

Although Catford Bridge made many attempts to break through, the Hospital defence held out and prevented any further score before the interval.

Soon after the change of ends Guy's took the lead when Birks cut through, passed to Breen-Turner, who spreadeagled the opposing defence, and Camp finished off the movement by scoring a great try which was not converted.

Encouraged by this success, Guy's went all out to increase their lead, and Spencer crossed the line a minute later, but in doing so put a foot into touch. However, Gartrell started another movement, which Birks carried on, and Breen-Turner cut through magnificently and scored behind the posts, but Sanders missed an easy kick at goal.

The Hospital back division continued to hold the upper hand, and Drew sent Spencer away on the right; when faced by the full-back, the latter cross-kicked, followed up, and ran in for another unconverted try.

Following pressure on the visitors' goal-line, Stowell caught the Hospital backs napping, cut through and after a grand run from one end of the field to the other, passed to Mackrell, who crossed in the corner.

Catford nearly scored again, but the ball bounced unluckily, and then Wadia and Vidot dribbled the ball out of the danger zone. The Hospital forwards backed up splendidly and, following a kick ahead by Drew, Camp just failed to secure the touch-down.

Guy's were now playing good football, and another fine effort ended in another try; this time Gartrell found a gap, passed to Birks and Spencer scored behind the posts. Unfortunately, the ball rolled over just as Bulstrode was about to kick.

In the closing minutes both Birks and Gartrell electrified the spectators with two splendid efforts, but Catford held out and Guy's retired comfortable winners by a margin of seven points.

Team.—W. B. Sanders; W. M. Spencer, P. H. Birks, J. S. Breen-Turner, R. F. Camp; P. C. Gartrell, G. McVicar; D. W. Burnford, A. J. Drew, P. A. Lane-Roberts, P. W. Renton, J. W. Bulstrode, A. M. McCall, C. Vidot, R. Wadia.

Guy's v. Old Paulines

FOR their home fixture with the Old Paulines on Saturday, September 24th, Guy's made one change in the side which did so well at Neath, and after a thrilling match the game ended in a draw of eight points each, Guy's scoring a placed goal and a try to the visitors' placed goal and a penalty goal.

Once again R. A. P. Hogbin (whose place-kicking was a feature when he was at Guy's) skippered the Old Boys and was a tower of strength to the visitors.

The Hospital had several anxious moments when the game started, and for the first few minutes they had to defend desperately. Eventually relief came when the Old Boys were penalised for off-side, and then Guy's found their feet.

First Steytler and then Dick cut through, only to be brought down, but Halamandres picked up in the loose, drew his man and created a grand opening for Babrow, who sent Hanson away at full speed. The latter upheld his reputation as a sprinter, and just managed to reach the line to score a try, which Plowman converted with a splendid kick from the touch-line.

Babrow and Van Steytler broke away again, but a forward pass spoilt another good run. When Plowman fumbled a long kick on the 25 line things looked dangerous, but Kynaston managed to get back in time and found touch near mid-field.

The Old Boys had a setback when Cockburn, one of their forwards, was injured and took no further part in the game.

Guy's continued to press, and the back division carried out a number of passing movements, but superb tackling by the Old Boys prevented the attacks from becoming dangerous.

Following a raid by the visitors' forwards, Guy's counter-attacked, and Van Steytler found a gap and sent Babrow in full cry for the line; unfortunately he was overtaken by the full-back, and it looked as though Guy's had missed a wonderful opportunity to score again. However, Fletcher

seized on to the ball, threw out a long pass to Hanson, and the latter touched down behind the posts, just as he was tackled by Hogbin. Plowman missed a good chance to add the goal points.

After the change of ends, the Old Boys set up a hot attack and, following two or three scrums five yards from the line, Guy's were penalised and Hogbin kicked an easy goal.

Guy's pressed heavily and, after Halamandres had broke clear on the blind side, Dick was about to score when the full-back kicked the ball out of play. Vidot fielded the kick-off and found touch in the corner. Guy's came within an ace of scoring on several occasions, and when they were awarded a penalty on the 25 line, it looked another goal, but Plowman missed by inches.

After doing most of the attacking, Guy's suffered a setback when the visitors intercepted a passing movement and Jones went through the centre and sent out a perfect pass to Cummings, who sailed in behind the posts for Hogbin to convert.

With the scores level, a ding-dong struggle followed; the tackling on both sides was magnificent, and very few movements were allowed to go far.

Near the end, Halamandres went very near, but he was badly supported, and a little later Darke sent out a pass to Hanson, but the latter just failed to reach it, with the line before him.

It was a splendid game, fought out at a great pace and a draw was a fitting result.

Team.—R. D. Plowman; J. M. Hanson, L. Babrow, R. C. S. Dick, R. U. F. Kynaston; J. van A. Steytler, C. Halamandres; D. H. Fuller, R. M. Sharpe, C. C. Vidot, A. Forbes, P. Fletcher, C. S. Darke, P. D'O. Kolesar, A. E. M. Wiggins.

Hockey

WORTHING SIX-A-SIDE TOURNAMENT

THIS hockey season commenced on Saturday, September 18th, in sparkling fashion, when a Guy's team reached the last four in the six-a-side tournament at Worthing. Nearly sixty teams took part, and to get to the semi-final in such a notable tournament is no mean feat. Can it be an omen for a still better season than last? Two years ago, when we had a moderate season, we were knocked out in our first game in this tournament. Last year, we had a really excellent season, beginning at Worthing by reaching the last sixteen. This year we reach the last four, and are unlucky not to reach the final. Let us hope our omen will come true!

In this tournament, play in each match is six minutes each way, with one minute interval. If victory is not decided by goals, the side with the greatest number of corners to its credit wins. If the number of corners are equal, then victory goes to the side in whose half the ball is not at the whistle.

Guy's had a bye in the first round, and, in spite of a scare in the train, arrived in time to play in the second against the Royal Sussex Regiment. The forwards played really excellently, the passing almost being too good to be true, and we won easily by 5 goals to nil.

Roberts appears to be booked for a continued trial at outside right. The defence had little to do in this match, but it fully showed its worth in the third round match against the Bohemians. This match was very even, and no goals were scored. We, however, were the victors by the position of the ball. Roberts was unlucky not to score near the end, and a shot from Martin hit the post in the last few minutes, so we emerged moral as well as actual winners.

In the fourth round match, the final of our section, the Newhaven defence was no match for the Guy's forward play, which kept the Newhaven players on the run the whole time. We won by 4 goals to nil, and having won our section, we entered the semi-final of the whole competition. The other semi-finalists were the Hawks, Metropolitan Police, and the Virginians.

Guy's were drawn to play the Virginians, a match which was one of the closest during the afternoon. After a magnificent run, Franklin scored for us after about two minutes. The Virginians scored just before half-time during a period when Greene (our right back) was severely handicapped by a leg injury. We also conceded a corner, and it was this long corner which gave the Virginians victory in the end. The Virginians took the lead immediately after half-time, but Guy's equalised three minutes from the end. From this point to the end of the game the Hospital attacked furiously, and the Virginian's goal was extremely lucky not to fall on at least two occasions. The Virginians hence won by a long corner, since the goals were equal. In the final the Hawks won by 4 goals to nil.

A word of congratulation is due to the players who so successfully represented the Hospital. It was particularly refreshing to see Franklin's brilliant play on the left wing. It is unfortunate that he will be with us only for a few months. The other great success of the team was Roberts (usually a half-back) at outside right. The defence was its usual safe self.

Results :—

1st Round. Bye.

2nd Round *v.* Royal Sussex Regiment. Won 5—0.

3rd Round *v.* Bohemians. Won 0—0 by position of ball.

4th Round and Final of Section. *v.* Newhaven. Won 4—0.

Semi-final *v.* Virginians. Lost 2—2 (by long corner).

Goal Scorers.—J. B. Franklin, 2 ; E. J. Martin, 7 ; D. G. E. Roberts, 2.

Team.—A. C. Greene ; T. C. Thorne ; H. A. Buck ; D. G. E. Roberts ; E. J. Martin ; J. B. Franklin.

Hospital Information, etc.

Notice

GUY'S HOSPITAL MEDICAL SCHOOL
DIPLOMA IN ANÆSTHETICS

A Course of Instruction in preparation for the November Examination for the Diploma in Anæsthetics of the Conjoint Examining Board in England will commence on Monday, 17th October, provided that there is a minimum number of seven entrants. The Course will cover a period of three weeks and will include lectures in Physiology, Anatomy, Pharmacology, Clinical Investigations and Anæsthetics.

The Course will be open to men and women graduates. The fee for the Course will be £15 15*s.* 0*d.*

Further information may be obtained from the Dean, Guy's Hospital Medical School, London Bridge, S.E.1.

Pass List

CONJOINT BOARD.
FINAL EXAMINATION.
August, 1938.

W. F. Mindham passed in Surgery and has therefore completed the Examination.

Papers by Guy's Men

Barber, H. W. Facial carbuncle treated with prontosil album. *Lancet*, 1938, ii, 668.

Sein, Capt. Min. Acute non-suppurative thyroiditis. *Ibid.*, 673.

Parfitt, J. B. Complications and sequelæ of extraction. *Brit. Dent. J.*, 1938, lxv, 355.

Camps, F. E. Bacteriological investigation with reference to puerperal sepsis. *Public Health*, 1938, li, 355.

Bennett, T. Izod, and Others. Severe hæmorrhage from the stomach and duodenum. *Lancet*, 1938, ii, 651.

Fry, L. S., and Another. A physiological study of the diets of fifteen rural workers' families in Essex. *Public Health*, 1938, li, 358.

Soothill, V. F. Social uplift and the birthrate. *Med Officer*, 1938, lx, 117.

Ryle, J. A. Medicine and eugenics. *Eugenics Rev.*, 1938, xxx, 9.

Hallpike, C. S. Observations on the pathology of Ménière's syndrome. *Proc. Roy. Soc. Med.*, 1938, xxxi, 1317 (Sect. Otol.).

Lambrinudi, E. Metatarsus primus elevatus. *Ibid.*, 1273 (Sect. Orthop.).

Thompson, R. H. S., and Others. The ultra-violet absorption spectra of fractions isolated from pneumococci. *J. Biol. Chem.*, 1938, cxxv, 75.

—— and Another. The isolation of nucleic acid and nucleoprotein fractions from pneumococci. *Ibid.*, 65.

Grant, R. T., and Holling, H. E. Further observations on the vascular responses of the human limb to body warming, evidence for sympathetic vasodilator nerves in the normal subject. *Clin. Sc.*, 1938, iii, 273.

Pearson, R. S. Bruce. Management of asthma cases. *Clin. J.*, 1938, lxvii, 363.

Guy's Hospital Reports.

July, 1938, Vol. lxxxviii (Vol. xvii, 4th Ser.), No. 3.

Gordon W. Goodhart : Arthur Edwin Boycott. Pp. 257-262.

G. W. Nicholson : Studies on tumour formation. XX, pp. 263-298.

Min Sein : Granulosa cell ovarian tumour as a cause of sexual precocity. Pp. 299-307.

W. Gordon Sears : Head noises and cranial bruits. Pp. 308-319.

A. Ralph Thompson : Report on cases of perineal swellings due to inflammation and other causes occurring in the Genito-Urinary Department at Guy's Hospital, 1910-1936. Pp. 320-355.

Felix W. Brown. The psychological investigation of a case of dermatitis artefacta. Pp. 356-366.

N. M. Jacoby : The importance of breast feeding in the prevention of diarrhœa and vomiting of infancy. Pp. 367-370.

Changes of Address

E. C. Zorab, M.B., B.A., 6, Cumberland Place, Southampton. *Tel.* 3455.

H. Colin Davis, 1, The Mount Square, N.W.3. *Ham.* 6379.

Dr. David Erskine, 62, Queen Anne Street, W.1. (*Welbeck* 8626) and 18, Gordon Mansions, W.C.1. (*Museum* 2338).

EDS. { C.H.E. W.E.Y.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

YOU, the new student at Guy's, are entering a large and unfamiliar institution that will be your home for some years to come, a home that, granted a certain respect and loyalty, will be as happy a one as you could wish to find. It is usual in these columns to offer the newcomer advice as to how he should tackle the problem of settling down in strange surroundings and adapting himself to new work and new conditions of work. We will not presume that you are at such a loss as to need our poor advice, for you will find that what at first appears so unfamiliar will shortly become commonplace, and that the vast stretch of years that appear to lie before you separating you from the day of qualifying will flash past with alarming rapidity. You will find here much to interest you both in your work and your play, and at no time will you occupy yourself with any one subject or department so long that you become bored or disinterested. There is such an infinite variety in your work and you are offered so many pastimes that you will be a queer one if you cannot find enjoyment with us here. Last year the new student was warned by the Editors against the insidious mental inertia which would, unless valiantly fought against, settle upon him and make him heedless of our many deficiencies which are to you now so apparent. To the brave men who wrote those lines there must have been left a faint trace of hope that those wrongs would be put right, that certain overflows of water would be stopped, that patients would not have to wait hours for treatment, that the bathrooms in the College might miraculously multiply, that more squash courts might be built—that in fact we would progress as others progress.

Now we would tell you that it is far better that you allow the dulling narcotic mantle of inertia to slip over you and make you forget once and for all that we are a little decrepit and a little *démodé*, than to keep a watchful lookout for the chance repair of the ravages of time or of addition to our meagre lot of luxuries. Allow your eyes to close just that amount that will make everything barely distinguishable and you will suffer none of the misgivings of the hopeful idealist or the wide-eyed fighter for better conditions.

Take only one look at the College both outside and inside and you will have an indelible impression of the type of building that you will help to condemn for the poorer classes in your practice, then try to forget it for its gloom and forbidding appearance in no way reflect the spirit or mind of those who move within its walls. It is this very inertia that we talk about that allows us to welcome you and tell you that with care you may remain proof against the darkening influence of environment.

You will quickly gather that there is little wealth here at Guy's, and we will now more than at any other time need the support of as many people as possible in order that we may continue. We would remind you that in spite of those great names now associated with the Hospital, it is upon the treatment of the common people by the common people, such as yourselves, that the reputation of the Hospital has rested and will rest in the future. Our reputation does not depend upon the learned observations of Bright or Addison or Wilks, but upon the skill and the judgment that you have acquired in your earlier studies applied to what you see at the bedside. The drabness, the overcrowding of your academic existence, must not discolour courtesy and thoughtfulness toward your patients, nor must they, if your medicine is to advance upon modern lines, influence your calculated assessment of those facts that you have with difficulty mastered in the laboratory. The progress of medicine, as pointed out by Sir Henry Dale in his opening address,

will depend in the future on your ability to grasp the advances of scientific research and in the application of these advances, rationally, logically, critically, to those human maladies with which for the rest of your lives you will daily be confronted.

THE Fison Memorial Lecture is to be given by Sir Thomas Holland, K.C.S.I., K.C.I.E., F.R.S., D.Sc., LL.D., Principal and Vice-Chancellor of the University of Edinburgh, on "The Drifting of the Continents" (illustrated by lantern slides), in the Physiological Theatre on Thursday, November 3rd, at 5 p.m. The Chairman will be H. L. Eason, Esq., C.B., C.M.G., Principal of the University of London, and tickets may be obtained from the Medical School Office.

WE regret to announce the death of Douglas Graham-Brown suddenly from pneumonia whilst returning from the Far East in the capacity of ship's surgeon. Many of you here now will remember Graham-Brown, who qualified M.R.C.S., L.R.C.P. in January, 1937, and passed his Final M.B., B.S. London Examination in the following November. We extend our deepest sympathies to his family in their sad bereavement.

Annual Prize Distribution and Opening Address

On Friday, October 4th, Sir Henry Dale, C.B.E., M.A., M.D., F.R.C.P., F.R.S., presented the prizes for the session 1937-38, and gave the opening address for the new academic year.

Sir Henry was introduced by the Treasurer of the Hospital, the Rt. Hon. The Viscount Nuffield, and the Dean, Mr. T. J. Evans, moved a vote of thanks after an admirable address. The Chairman of the School Council, Mr. W. M. Mollison, thanked Lord Nuffield for his kindness in presiding at the assembly.

Sir Henry Dale's speech is printed in full below.

"THE FUTURE OF MEDICINE"

VISCOUNT NUFFIELD, Ladies and Gentlemen.—When the Dean of this great Medical School honoured me with the invitation to present the prizes and to speak to you on this occasion, I gave a title to indicate the general nature of my remarks, "The Future of Medicine." Then, as I was beginning, towards the end of September, to put my thoughts in order for the date, October 7th, originally fixed for this occasion, the position in Europe became such as to make us all wonder whether medicine, or any part of the civilisation we have known, would have any predictable future, in the lifetime of those of us who might survive the catastrophe which became so terribly imminent. We all shared the enormous sigh of relief that passed through Europe and round the world as September came to its end. If the threatened blow had fallen, medical men, happier in this than many, would have been called to continue the service which their training had equipped them to render to their fellow men; it might have been rendered under conditions of almost unbearable stress and difficulty, but it would have been essentially the service which still makes too large a part of ordinary medical practice—the attempt to relieve or to cure sufferings inflicted by mankind upon itself, by man's wrongdoing, folly, or indifference. Now, with the knowledge that this terrible danger to humanity has, for the time at least, been averted, and with a determination, I hope, to do whatever lies in our power to prevent its recurrence, and to answer the call if it comes, we can look forward with renewed hope to a future of normal progress. And I think that it should be of interest, to you who are entering upon careers devoted to the acquisition and use of medical knowledge, in most cases to its practical applications, if, looking at the changes in the recent past and in the actual present, we try to form some idea as to the future of this medicine with which you will be concerned.

Perhaps I should make it clear at once that I shall have little to say on probable future changes in the organisation of medical practice, or on what is often called medical politics. Many years ago a particular group of examiners were led, indeed, to certify me as qualified for the high responsibility of medical practice, but the soundness of their judgment was never put to the test of experiment. Having had no experience of practice, I should be peculiarly unfitted to offer opinions and advice as to the methods of conducting it. Opportunity and natural inclination took me away from the bedside to work in a laboratory, and there I have remained. I am not disposed to apologise for a life so spent, holding it not an unworthy aim, to endeavour to extend or to strengthen some part of the scientific structure which the fabric of medical knowledge requires. Medicine will always need a succession of recruits for the research branches of its service, and I hope there may be some among you. You will find better organised opportunities for such work than we who graduated when this century was beginning. In particular, there is a growing recognition of the fact that, while its foundations require

constant renewal, extension and reinforcement from the results of research over the whole range of the natural sciences, including those usually termed medical, the main fabric of medical knowledge cannot grow without the direct investigation of human diseases and ailments as such, carried out in wards and clinics and the laboratories attached to them, by men specially trained in the methods of research, and prepared to make it their life's work. Research, like anything else worth doing, needs a natural aptitude or vocation, which is not the same as that which makes for success in practice. Don't imagine, as some young men have seemed to assume in talking to me, that research offers an easy escape from hard work and drudgery to the man who lacks enterprise for other activities. Research calls for hard and exacting work, and the rare rewards which it offers are not those of material success. If any among you have the true vocation for the life of research, you will find, as I have said, that recent years have greatly widened the opportunity for it.

You will know that, since 1914, there has been an annual grant in aid of Medical Research provided by the Government from the public funds and administered by the Medical Research Council, under whom I am privileged to serve; and I do not need to remind you in the presence of Viscount Nuffield, of the princely endowment by which he has recently made it possible for the University of Oxford to create several great new departments of higher study and research in the field of medicine. There are many other signs that the public conscience and enlightened private generosity, in this country, are awakening to the fact that the health and happiness of mankind are promoted by the growth of medical knowledge through research, and not merely by means for the immediate application of what is known, to the relief of illness which, only too often, has already passed beyond the reach of remedy.

Research is my job in life, and the mention of it has led me into something like a digression from my main theme. Before leaving it, however, I should like to mention one particular direction in which it seems to me that the need for research ought to make a special claim on the men qualifying for medicine in this country, and in the other parts of the Empire. A vast area of the tropical regions of the world lies under British rule, and I think that it can properly be urged that British Medicine has a special responsibility with regard to the diseases which still, over vast areas in the tropics, continue to take a terrible toll of life and health and energy, and put an enormous handicap on the development of their peoples and their resources. British medical men in the past have made contributions, of which we are all proud, to our knowledge of tropical diseases and the means of their control. Often they have worked on their own initiative, with little special training, and with only such facilities as their own genius and determination could improvise, under the most difficult and discouraging conditions. Great discoveries have thus been made in this field, but it still presents an enormous range of medical problems waiting for solution, which can never be found without the further extensions of knowledge which only research can bring. Here, it seems to me, if anywhere in the medical field, many nuggets of discovery still lie relatively near the surface, to be won by trained observation, in alliance with some of the courage, enterprise and resourcefulness which took British explorers into these regions in times before ours. And here again, for those who are attracted by this kind of opportunity, the way to training and apprenticeship is being made far easier than ever before. If any of you should have the vocation for research, with some of the right spirit of adventure, there is noble work for the Empire and for mankind waiting to be done.

I must not be tempted, however, into talking too long about research, and the opportunities now offered for it. Most of you will make your contributions to medical knowledge only by way of incident, in its application to immediate human needs. And what I had chiefly in view, was an attempt to form an idea of the nature and scope of some of the changes which are to be expected in the medicine which it will be your privilege thus to apply. There is one tendency, so obvious as hardly to need mention and certain to be progressive. It is no more than the practical, scientific application of a principle long accepted in a familiar proverb, which states that prevention is better than cure. I told you that I should have little to say about the organisation of practice, and I need only say that this cannot fail to be affected by the extension of the possibilities of preventing disease, into new areas where previously the only aim of medicine was to cure or to relieve what could not be prevented. It seems certain that the future will show an acceleration of the change, already in progress, by which the activities of the individual practitioner in preventive medicine are supplemented, supported and to some extent directed, by the organised use of medical knowledge on behalf of the community. I expect that the conception of preventive medicine itself will widen, with a growing recognition that the ultimate aim of medicine is not merely to relieve, to cure or to prevent diseases which can be recognised and labelled, but to define and then to obtain, so far

as insistence can do it, the conditions for a full and healthy development, and for continued health, for every member of the community.

This shift in the aim of medical effort from cure towards prevention has been made possible by, and presents only one aspect of, a change which seems to me to be much more fundamental. I suggest to you that you are preparing to enter the profession of medicine at a time of exciting and even revolutionary change and progress. I suppose that the beginnings of this change are to be found, in retrospect, some sixty or seventy years ago, when Europe was witnessing an extraordinary outburst of activity in what we now call the medical sciences. Bacteriology, with all that it has meant for our knowledge of the infective diseases, was then emerging as essentially a new branch of science, and physiology also was undergoing something like a new birth, and entering upon an orderly progress of astonishing rapidity, after the centuries since Harvey, in which only rare and widely spaced advances had been made by individual men of genius. But this remarkable renascence had been in progress for some years, before it began to produce a serious effect on practical medicine; and I think we must admit that the effect was longer delayed in this country than in some others. It seems to me, in retrospect, that the new influence was only just becoming perceptible when I was a student in hospital, at the beginning of the present century; and I believe that the full impact on medicine of the scientific development in the midst of which we are living has only been felt much more recently. Medicine, of course, was advancing before this experimental era, at the hands of men who had learned, at the bedside and in the autopsy room, an exquisite acuteness of direct observation, which is unlikely to be found in such perfection in those who have modern instrumental aids. I should be the last to belittle what medicine owed to the clinical and pathological observations made in the earlier part of the nineteenth century, by men like those whose discoveries have given such lustre to the record of Guy's Hospital in that period—Richard Bright, Thomas Addison, Henry Hodgkin, William Gull. Yet at that period medical knowledge could only advance by rare and irregular steps, and, if we had a scale of measurement for such things, I believe that we should find that medical knowledge has advanced, and practice changed with it, more in the past few decades than in several centuries preceding them. A few instances, from the period covered by my own experience, may serve to illustrate what I mean.

Some of you may have seen a recently published book of reminiscences, entitled "The Horse and Buggy Doctor," by an American medical man, Dr. Hertzler, whose experiences range from primitive conditions of practice in a newly settled Mid-Western State to modern practice is an organised hospital. If you read his book, as I recommend you to do, you will find it rich with a shrewd and humorous wisdom, and with much, as might be expected, to emphasize the value of direct experience in medical practice, in comparison with merely theoretical knowledge. He recalls, as his first introduction to the tragedy of disease, sixty years ago, the words of his father at family prayers: "Protect us, O God, from diphtheria," and the general feeling to human helplessness in face of that dread enemy of child life which found voice in the petition. My own memory does not go back quite so far, but just far enough to recall the tragedy of deaths from diphtheria in neighbours' families, and the suspicion of faulty drains as representing the highest flight of medical speculation concerning its ætiology. The Klebs-Löffler bacillus was actually discovered some fifty-five years ago, but in 1900, when I was a hospital student, Behring's antitoxin was still something of a novelty, representing the first successful inroad of immunology into practical therapeutics. Diphtheria antitoxin, with all the improvements which have followed in its preparation and its use, still finds its great value in the treatment of the disease, and has remained of limited effect in preventing its incidence. Protection by active immunisation, with the neutralised or modified toxin, only began to find practical application some twenty-five years ago, and successive improvements in the preparation of this reagent were still required to make its use generally available, for the protection of a community. To see what can now be done by the systematic immunisation of a whole population, I regret to say that you must look beyond your own country, though you need not go outside the British Empire. In the Canadian State of Ontario the need for antitoxin to treat diphtheria has been rapidly declining, as the immunisation of school children with toxoid has become established, until they are now within sight of the position in which diphtheria will have ceased to count as a threat to the child life of that progressive community. Am I wrong in foreseeing that an important part of your duty as medical men will be to educate yourselves, and the public opinion which will look to you for guidance, so as to ensure that the benefits of such saving knowledge as secured for those whose health will be in your care? And is it extravagant to suggest that a few decades have here witnessed a vastly greater change, still progressive in this and related fields, than any which preceding centuries could record?

You have probably heard that the same principle of active protection, by use of a modified toxin, is now being successfully applied in the case of tetanus.

Another recent and dramatic change in the power of medical knowledge to deal with a disease has aroused such public interest that it comes readily to every mind. In my student days a case of diabetes mellitus in the wards was viewed with despair by the physician, conscious of his inability to do anything but prolong life for a little, and that at the cost of such deprivation and restriction as made it hardly worth living. You know how that picture has changed since insulin came, some sixteen years ago. But the discovery of insulin did much more than transform the treatment of diabetes. I am convinced that it gave an enormous impetus to researches on hormones in general. At the beginning of this century we knew, as something of a novelty, that myxœdema could be treated by replacing the missing thyroid hormone, and this was then the only clear case of the use of a hormone in therapeutics. Extracts of the suprarenal medulla, of the pituitary posterior lobe and of the intestinal mucosa had been shown to produce physiological effects on injection, and shortly afterwards adrenaline was chemically isolated. But for other glands, known by the effects following their removal to be necessary for life, or for normal metabolism and development—the pituitary anterior lobe, the suprarenal cortex, the pancreas, the parathyroids, the gonads—the suggestion that they produced their effects by secreting hormones into the system was little more than a plausible inference, or a convenient way of interpreting their functions in default of direct evidence. Twenty years ago it was customary to think that if these glands had, indeed, this endocrine function, their hormones were probably secreted so immediately on formation, or were so unstable, that there was little likelihood that any of them would ever be even extracted in stable solution, to say nothing of the prospect of obtaining them pure, determining their structure and producing them by artificial synthesis. It was the preparation of insulin from the pancreas which gave the first hope of a way out of this dead end of discouragement. Look what has happened since. Active hormones have been obtained from the parathyroid glands, from the suprarenal cortex, from the different gonads, and, a whole series of them, from the pituitary anterior lobe. From liver and from stomach mucosa materials have been extracted, the administration of which restores to the victim of pernicious anæmia the factors missing from his blood-forming system. Insulin has been crystallised, thyroxine has been prepared by complete synthesis, while several of the sex hormones and that of the suprarenal cortex have been obtained as pure, crystalline substances, structurally identified, and even prepared artificially by partial synthesis from different sterols. And twenty years ago we were still wondering whether any of these substances had a real existence. Note, also, the degree to which organic chemistry, which began as the chemistry of the products of life, but had spread into fields having little direct relation to these, is now returning with new powers to its original objective, and becoming a powerful agent of medical progress.

We can find many points of similarity in the recent history of progress in dietetics. At the beginning of the century we talked about proteins, fats and carbohydrates, and had some knowledge of the energy requirements of the body; but ignorance of qualitative dietetics was a reproach to medical science, and medical advice on diet provided a fair target for the layman's humour. Though only the fringe of a vast subject may yet have been touched by accurate, experimental knowledge, the change in recent years has been almost incredibly rapid. To mention one direction of this change, in which the advance has been remarkably similar to that seen in the field of the hormones, we first began to hear of definite evidence about essential accessory or protective factors in a diet, the so-called vitamins, about 1912. Gradually their multiplicity was recognised and they were distinguished by their different functions and general chemical properties. Here again, however, twenty years ago, it was still possible to think of them as intangible traces of substances which might never be accessible to exact, chemical study. Yet, beyond all reasonable expectation, seven or more of them have now already been separated in pure form, structurally identified and, the organic chemists again giving aid, prepared artificially by synthesis; and there are others, I believe, in near prospect.

Now I have chosen these three examples, out of a number which might have been taken, including some illustrating the effects of research on the advance of surgery, not only because they illustrate the breath-taking speed at which exact knowledge has advanced in recent years, after centuries of slight and infrequent movement, but because they all illustrate the way in which research is providing new conceptions of ætiology, and new resources for treatment based directly upon it. Whether we are dealing with disease due to infection, to defect of some natural endocrine function, or to a missing factor in a diet, these new extensions of knowledge are enabling us at the same time to define causes, and to apply

remedies which deal directly with those causes, whether by prevention, removal or replacement, and not merely with the symptoms which they have produced. That seems to me to be one of the most important changes in medicine in the period which my memory covers, and one which is certain to continue in that future which concerns you all—the emergence of medicinal treatment dealing with causes, and not limited to the palliation of symptoms. One of the strongest impressions which I received when I entered the medical wards as a student was that of the attitude of cynical scepticism then prevailing concerning the value of medicinal treatment. A dose of this or that might make the patient feel easier, or ought to be given because somebody had suggested that it might do good, or even only because the patient would expect to have some medicine to take; it was astonishing and depressing to me to discover how seldom a prescription was written with any clear confidence in a real effect on the disease. There were, of course, a few well tried and trusted remedies, such as digitalis in heart disease, mercury and iodides at different stages of syphilis, and salicylates in acute rheumatism; thyroid gland and diphtheria antitoxin I have already mentioned, as early examples of remedies dealing directly with known causes; but, in a very large proportion of cases, all that was expected of the treatment was that it might make the patient easier, leaving the cure to Nature. Who would have ventured then to predict the day when it would become possible, by the use of natural remedies, to make a whole population resistant to diphtheria infection, or practically to abolish rickets in the children of a modern city, or to restore the hormonal defects in the diabetic and the sufferer from pernicious anæmia, so as to enable them to live almost normal lives?

The same kind of change is perceptible, I think, in the therapeutic use of artificial chemicals and substances unnatural to the body. Treatment of symptoms is, of course, not without its own importance; the patient himself is likely to be more concerned for the relief of his pain or discomfort than for the identification and removal of its cause, and such relief is often, in itself, an important factor in his recovery. Synthetic chemistry has done a real service to medicine in producing new, and sometimes more effective, symptomatic remedies; though we could wish that they were not offered in such bewildering and redundant profusion, and may suspect that many of them are pressed on our notice merely because they are new, and without any proper ground for believing them to be better than others of like action, which have long been in use. Of much greater significance for the future, in any case, is the fact that synthetic chemistry is also producing artificial remedies which deal with causes. Till quite recently this new chemotherapy had triumphs to record in the cure of tropical diseases due to protozoa, like malaria and sleeping-sickness, and of spirochætal infections like syphilis, but there had been little to encourage a hope that it would ever be possible by such means to combat infections by ordinary bacilli and cocci. And then, only three years ago, came prontosil, and its active moiety, sulphanilamide, and the brilliant new prospect, thus opened, of the successful treatment of conditions due to infections by streptococci, such as puerperal fever and erysipelas. Here was a fresh starting point, for the quest of new compounds which would directly combat infections by other kinds of cocci and other bacteria; and already one relatively simple derivative of sulphanilamide is on promising trial for the treatment of lobar pneumonia. And we have here clear evidence, I think, that the application of synthetic chemistry to the production of remedies is responsing to the same general change in the aim of therapeutics, which we have already observed in connection with the natural remedies. Synthetic substances are coming to hand which deal radically with the causes of disease, and do not merely modify or moderate the resulting symptoms. And this is a change, only now becoming effective, which seems to me certain to continue and to become more rapid in the future.

When I entered the medical wards as a student, a wise and scholarly physician advised me to remember that medicine was still an empirical art, and I think that he was right, at the time the words were spoken. Certainly medicine seemed then to have few points of contact with the experimental sciences which we had encountered in the pre-clinical course. "Some day," he continued, "we hope that medicine may become an experimental science, as physiology is, but the day is not yet here." My reading of the change which has occurred in the years that have followed is that the day then foreseen is now dawning, and the future which I foresee for medicine is one of continued and accelerated development into an experimental science. I expect you will encounter some who will regard such a change as deplorable, though perhaps inevitable. I recommend you not to take such jeremiads too deeply to heart. New problems will have to be faced—how to adapt the limited time available for study, whether before or after qualification, to the rapid expansion of knowledge, and how to organise practice so as to make the results of research generally available in diagnosis and treatment. You may hear it said that the personal touch and intimate sympathy between doctor and patient are doomed,

or threatened. I see no reason for believing them to be so, though they may come to occupy less of the picture, as the doctor can make other and more effective contributions to the cure. Surely there could be no firmer basis for confidence between doctor and patient than a shared conviction that medicine is advancing as a science, and that its growing resources are being used to the full in discovering and treating the cause of the trouble.

I suspect that some of you may presently be inclined to smile at me as an enthusiast and a visionary, and to say to one another that all this talk about the progress of medicine by research may be of interest for workers in clinics, hoping to become famous by newly describing and labelling rare but recognizable syndromes, but that it will have little relation to a general practice, dealing largely with imaginary ailments, in people of the type described by the late Professor Huxley as elderly females of both sexes. If you are inclined to think thus, I shall understand, but I shall completely disagree with you. With the disappearance, now taking place, of the earlier separation and critical rivalry between experimental research in laboratories on the one hand and empirical observation at the bedside on the other, and with the formation of a common front of advance in medical science, I have faith that medicine will move towards the ideal of the creation and maintenance of the conditions of health, and not limit itself to the recognition and treatment of acute or obvious failures and anomalies. There will always be a delay in the application to ordinary practice of the new resources of knowledge and of method which research in the clinics and the laboratories produces. Indifference may make that delay too long, but uncritical and competitive eagerness may as easily make it too short. Sooner or later, in any case, the new weapons of science will come to your hands, and one of the most important developments which I hope that the future will see is the intelligent and enterprising use of the new knowledge by the man in ordinary practice, enabling him to retrieve, from the limbo of "imaginary" ailments, many minor hormonal and dietary deficiencies, many chronic reactions to latent infection, and many partial failures in factors of normal function yet unrecognised which future researches may reveal. If we can thus look forward to the time when the man in ordinary practice will be able to recognise, anticipate and deal with the causes of vague and chronic ailments which bear no diagnostic labels and seldom reach the hospitals, then, indeed, I believe that the future of medicine is bright with the hope of better service to the health of mankind.

The Art of Diagnosis

A Lecture delivered at Guy's Hospital on 13th July, 1938, by Frank Cook, Esq., F.R.C.S., F.C.O.G.

GENTLEMEN,—You may think it presumptuous on the part of a gynæcologist to discuss diagnosis in general and to deprecate present-day trends in the teaching and practice of medicine as a whole. In justification, I venture to define gynæcology as the study of woman in health and disease and the prevention or treatment of ailments peculiar to her sex. It is most important that a gynæcologist should be a good craftsman, but if he confine his attention to the purely technical branches of his subject he were better employed as a carpenter or a plumber, however skilful he may be.

Let me admit at the outset that the diagnosis of strictly gynæcological conditions is comparatively easy; in fact, it is so easy that I am always wondering why at least 50 per cent. of the patients referred to us are quite obviously non-gynæcological. They may have some trivial "gynæcological" symptom, or perhaps a menstrual aberration within physiological limits; but surely you would never dream of referring every patient with a cold in the head to a laryngologist or everyone with a headache to a neurological surgeon. Many of these women, wrongly addressed to gynæcological departments, belong to the large army of psycho-neurotics who are already over-inclined to attribute all their troubles to alleged defects in their pelvic organs. On the other hand, there are some who are seriously ill; it seems to me almost indecent, as it is indeed dangerous, to throw all the limelight on a vaginal discharge, for instance, in the case of a patient who is suffering from pulmonary tuberculosis, epilepsy or diabetes. I was once asked to treat a vaginal discharge in an old lady who was evidently dying—a crude fact which had apparently escaped the notice of her physician. The majority have more or less distressing symptoms, such as backache and abdominal pain, for which there is commonly not the slightest indication of any gynæcological source. I am very well aware of the modern tendency to shelve responsibility; passing the buck and handing on the baby are old games, but, in medical practice, who on earth can possibly benefit from all this misdirection, unless it be the osteopath and every variety of quack to whom these unfortunates eventually

resort in desperation—if they can afford it! As far as I am able to make out in many cases, the only serious attempt at preliminary diagnosis has been to determine the sex of the patient, and even that is sometimes wrong! Of course, a suitable label is attached, such as "salpingitis" or "metrorrhagia"; these are almost invariably wrong. Why not at least relieve mental inertia with a little intellectual honesty, and merely say: "Here is a woman in distress"?

Now, let us depart for the time being from the grievances of a gynæcologist, however relevant, and let us study the problems of diagnosis from another aspect. It falls to my lot to examine a fairly large number of candidates in their Finals, and I wish to refer more particularly to the clinical examinations. May I assure you incidentally that considerable importance is attached to these, and rightly so. Having examined the patient and returned to the witness box, the average candidate starts off in this manner: "The patient's age is 25, she had measles as a child, she has not had scarlet fever, she has six teeth missing, her tonsils were removed at the age of ten, her last menstrual period was on October the nineteenth," and so on. I know that he is playing for time, and I also know that he fondly believes there to be one answer and one answer only to the clinical problem before him. Therein lies a curious paradox: the more discursive the medical man of to-day, the more does he hope to find a brief and comprehensive label in the end. As if anyone could sum up in words that infinitely complex organism—a human being affected by pathological processes, and place the whole in a nutshell neatly labelled. This is the main point of my discourse; but let us return to the candidate. To him I say: "Yes, you are a good and conscientious boy; your teachers have taught you to be methodical and observant, and I am sure you were an excellent ward clerk; but on the morrow you may be a doctor, so will you kindly discard the irrelevant observations, bring out your main points and display a little inductive reasoning by putting two and two together." As often as not he then says: "I should like to have an X-ray examination, a blood count, a test meal, a bacteriological investigation of the urine," etc., etc. That man, qualified or unqualified, is likely to remain a ward clerk throughout his life; the medical profession is full of such. Is it altogether his fault, or is it the fault of his teachers and examiners?

We will take the latter first. Everyone knows that the examination system is defective, particularly with regard to all branches of clinical medicine and surgery. In spite of the remuneration afforded to examiners, I sincerely wish that the whole stultifying outfit could be abolished. Unfortunately, it seems to be impossible to replace it, such are the limitations of human nature. By some rough and ready method or another we have to protect the public, although many of them do not deserve it of us. This being so, you will reply to me that examiners require a definite answer to each of their questions, and that they expect each of the problems presented to you to be solved in a nutshell. As a whole, I am glad to think that they require nothing of the kind; there is nothing definite in medicine, which is not an exact science; diagnosis is inevitably a matter of probabilities, and therein lies its fascination—except to the fool with a one-track mind. It is true that a few examiners, whilst masquerading as physicians or surgeons, are blessed or cursed with the mentality of schoolmasters, but the majority are only too well aware that our profession is called upon to deal with the intangible complexities of human nature; they are out to discover how much you know, rather than the gaps in your knowledge; above all they require evidence of a well-trained mind and your ability to deal with a clinical situation. Lawyers and accountants are concerned with words and figures, based on somewhat arbitrary though well defined precedents; *our* foundations are always moving, as are our targets.

To turn to the clinical teaching of recent years, there is much that is praiseworthy, particularly in view of our overburdened curriculum together with the series of revolutionary changes that have occurred within the lifetime of many of us and are likely to continue. In diagnosis, however, there are two great essentials—a sense of proportion or relative values and that inductive reasoning which threatens to become a lost art in medicine. When making a display of thoroughness in our investigations we must never overlook the immeasurable importance of these essentials; otherwise we shall always miss the wood for trees, a process regrettably manifest on every side. Here is a great danger, for which I am inclined to blame the system of piecemeal investigation imported from America and Germany under the blessed name of clinical research. Please do not think that I am belittling *genuine* research, clinical or otherwise, for which I have the utmost respect; on the other hand, I am all for genuine thoroughness and accuracy of observation. But it must or should be obvious to you that many of those endless series of irrelevant and uninspired "clinical investigations" with which our laboratories and special departments are inundated indicate (*a*) that someone contemplates writing a paper, or (*b*) that someone else is hiding his lack of wits or courage under a highbrow cloak of pseudo-scientific enterprise. As you know, most highbrows are

fools or cowards seeking a refuge. I will venture the opinion that 80 per cent. of the work performed by the clinical laboratories, X-ray departments, etc., of to-day is more or less unnecessary—although it is conducted under the noble guise of team work. There is a worse feature than this: thousands of patients are continually becoming hospitalised, potential neurotics become hypochondriacs (in the lay sense of the term), and they are lucky if they escape unwarrantable operations with resultant post-operative neurasthenia. The saddest feature of all is that a new generation of medical men and women is being embarked with but the scantiest notion of diagnostic values. All this sort of thing is understandable in the West End and elsewhere, since in these higher circles someone at least benefits—to wit, the investigators, but I cannot see the point in hospital practice where added burdens are imposed on all concerned without financial reward. Nor do I understand why our indefatigable investigators fail to go the whole hog whilst they are at it; why not have every available body fluid examined with reference to every chemical constituent and micro-organism known to science? Why stop at hydrochloric acid and the Wassermann reaction? It would seem more logical to continue *ad lib.*

Closely associated is the departmental danger. Patients of to-day are extremely fortunate if they happen to make first contact with the medical profession by consulting a really good clinician—there are so few. Otherwise they are more than likely to gravitate towards a department or an enthusiastic specialist. Let me take for example the common case of a neurasthenic female who is about 40 per cent. below par, and likely to remain so unless some philanthropist stands her a real holiday and endows her with £500 per annum free of Income Tax. The poor soul doubtless displays a multiplicity of symptoms, and it is a matter of luck as to which department she reaches. If she goes to one, she will have a test meal, X-ray examinations, etc.; if she goes to another she will have a cystoscopy; yet another will oblige her with a rectal examination and possibly sigmoidoscopy, or they might remove her appendix. If she comes to us, we are supposed to conduct a vaginal examination complete with speculum; indeed we dare not do otherwise, since we have been challenged. Perhaps I might tell her that she is tired out, advise her to take the air in the park (*not* the Guy's Park), or give her half a dollar to go to the pictures instead of infesting out-patient departments. But she would think me a fool and not a proper doctor; moreover I should be exposed to the criticism from medical onlookers of being casual, frivolous, and altogether lacking in professional conscience. There might be serious complaints; so one merely returns a negative diagnosis, and makes an attempt to steer her clear of other departments. The onus is really not on us, it is upon the man or woman who sent her to us, but we try to be human. In this connection, let me direct your attention to an excellent article by Dr. Stephen Taylor, in the *Lancet* of March 26th last, entitled "The Suburban Neurosis." He is not, nor does he profess to be, a psychiatrist as the title might imply, but he is certainly a most enlightened young physician.

From what I have already said you may gather that I assume the majority of our patients nowadays to be psycho-neurotic. That is perfectly true—they are, but do beware of the underlying danger, to which I freely admit that I am particularly prone. Every neurotic must die of something some day, and it is at least debatable whether it is better to let one neurotic die undiagnosed than to diagnose and treat non-existent organic conditions in the ninety-and-nine. The real difficulty arises when psycho-neuroses and organic pathological lesions coincide in the same individual; that demands clinical acumen.

In a previous lecture, and on many other occasions, I have held forth on the danger of seeking an all-embracing label to describe a complex clinical condition. To take an example from my own subject: is it conceivable that any sane and well-informed individual would attempt to summarise in a word or in a sentence the infinitely complicated processes involved in normal menstruation, much less the abnormal? We are clinicians, not stamp collectors. And yet we are continuously assailed on every hand by a public, medical and lay, which demands a simple nominal solution to be neatly pigeon-holed or filed. Doctors and dressers say: "Well, what is the answer?" Patients and their relations say: "We insist on getting to the bottom of this; what is the Cause?" Poor ignorant souls; they are very trying, and often infuriating. What can their conception of a *primum mobile* be? I only wish we could give them the answer they require—it seems to be far more important to them than treatment, even successful treatment; but most of us have a streak of intellectual honesty (or professional snobbishness) which prevents our inventing an impressive word or phrase to meet the occasion. Do it if you wish; tell than that they have the Colitis, the Acid, the Anæmia or the Glands; but that way lies quackery. Leave it to the vendors of patent medicines and to the appendicectomists, titled or otherwise; if we would save our professional souls, we must keep the party clean. No, gentlemen, someone must hold the fort of truth in a world that is hysterical, confused and seeking after miracles. It is even

better to say: "I do not know." You can add: "Although I am generally supposed to be the greatest living authority on this subject!" That is at least an honest and harmless lie, and you may get away with it.

The supreme artist in clinical diagnosis regards the *patient*, not the disease, as an entity. He takes into account every relevant feature, general and local: physical, psychological and environmental. He assesses the relative importance of these features, and forms a mental picture or conception of the whole. This picture he can convey to others without any long rigmarole or dossier, provided those others are intelligent clinicians rather than superannuated ward clerks. As I have said before, the two great essentials are a sense of proportion, born of extensive experience or imagination, and a capacity to reason by induction. Let me assure you that a practical consultant's verbal report to a *good* doctor appears to be a very simple affair. The summing up of a clinical situation is conveyed in some such words as these: "Decent old soul; I am afraid it is rather hopeless"; or "I suppose we ought to have a cut at it; she will do well. Where would you like to have it done?" These observations may sound deplorably casual to the uninitiated, but they imply that a multiplicity of factors has been taken into consideration and intelligently assessed. This is well understood on both sides; the necessary knowledge is taken for granted. Generally speaking, a surgeon tends to be rather too quick in forming a judgment, since he is so frequently called upon to be quick in action. A physician tends to be too slow, and he often fails to reach a conclusion of any practical value. But we must remember that his knowledge is much wider and greater than ours—he has more factors to balance; on the other hand it has been part of my theme that conclusions are not always attainable in medicine.

In obtaining a clinical history you will bear in mind that very few patients are capable of making a plain statement of fact. Of this you are already well aware. Their observations are almost invariably coloured by their own interpretations, by what the other doctor said, or by fortuitously coincident phenomena. Symptoms also are often difficult to evaluate: a patient in an anxiety state never has a merely definite pain—it is usually an agonising, terrible and widespread pain.

We have always been taught to avoid any diagnosis that involves a "double pathology." This is bad and dangerous teaching. Do not be afraid to diagnose two, three or even twenty more or less independent pathological conditions in one and the same individual.

Beware of the fixed idea, in patients and colleagues alike. One can understand that politicians must invariably assume their opponents to be wrong—it is part of the game. But it is a regrettable fact that some of the most eminent members of our comparatively scientific profession are obsessed with fixed ideas which nothing on earth will persuade them to discard. This implies that at one period or another of their career they have crammed up and pigeonholed some comprehensive subject, possibly with a thesis in view. These men are often excellent teachers—at any rate they are dogmatic; but they have sacrificed one of our greatest diagnostic gifts—the Open Mind.

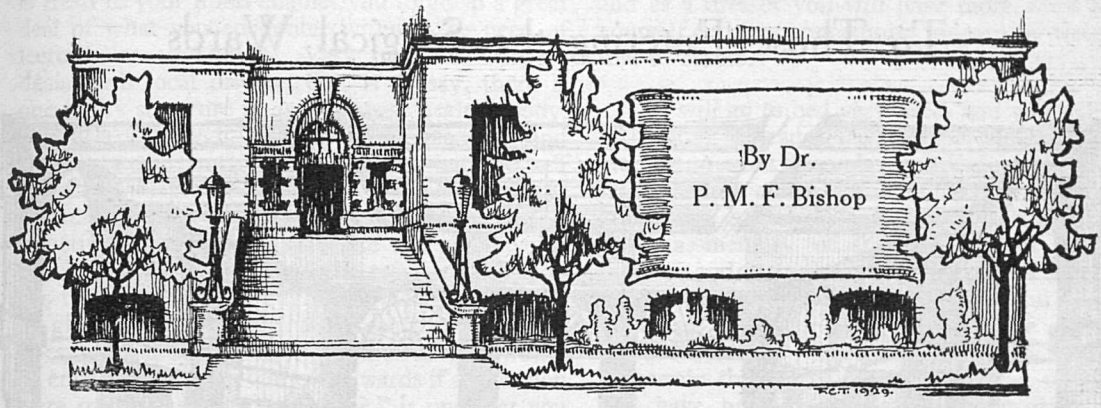
It is always helpful to see the patient's husband or wife as the case may be. You may learn more from a brief acquaintance with him or her than you will from a whole series of investigations. Some day I am going to write a book on the "gynæcological husband."

Diagnosis by elimination is a very feeble mental process; it is all too prevalent. I suppose we must blame to some extent that oft-repeated question: "Give the differential diagnosis." If a woman has a pain in her right lower abdomen, and you have satisfied yourself that she is not suffering from appendicitis, etc., for Heaven's sake do not send her along to us labelled "Salpingitis" when there is not a single feature in her history or physical condition to suggest that diagnosis. Call it a pain in the right side of unknown origin; salpingitis is a very real and definite entity. Those P.R.D. cards can be a great curse.

May I repeat that diagnosis is largely a matter of probabilities. Keep your eyes open to every possibility, but never despise the obvious.

Finally, gentlemen, let me impress upon you the supreme importance of Concentration. We live in the midst of confusion and distractions of every kind; it is difficult to keep our heads clear. But when a patient consults you, and when you choose to accept the implied responsibility, that patient for the time being is entitled to the full use of every ounce of grey matter at your command, whether you spend two minutes or two hours in making your diagnosis. Never mind the woman you delivered last night, the operations you performed yesterday or those you are going to perform to-morrow; never mind the patient you have just seen or the one next in the queue; never mind the telephone, your wife's unreasonableness, or those final demand notes which arrived this morning. In the practice of medicine you can only do one job at a time, whether you are a quick worker or slow. If the rest of the world seems to be pestering you with all its troubles, turn to it a blind eye and a deaf ear whenever you are applying your faculties to the art of diagnosis.

To Those Undertaking the Pre-Clinical Sciences



By Dr.
P. M. F. Bishop

THE first three years in the life of the medical student are generally supposed to be the dullest. This is because the subjects studied in the pre-clinical period are considered by many to be purely academic, and to have little bearing on the practical training of surgery, medicine or general practice.

Banish this idea completely from your mind when you enter the Medical School. It is true that you will have to work to a syllabus, and that the knowledge you acquire will be determined to a large extent by the requirements of those examinations which must be successfully negotiated before you can enter the wards, where at last you will be dealing with living and dying patients. But there is a reason for everything you will learn in your pre-clinical studies, and that reason is based fundamentally on the experiences of clinical medicine. The first action of many students when they pass the examinations in Anatomy and Physiology is to set fire to their notes and to try to get a decent secondhand price for their text-books. Then they feel they can start afresh on a new life, *the* life, the life of the wards. But though the Medical School is separated from the Medical and Surgical Wards by a spacious park of (sometimes) verdant green, they are much more intimately united as far as their activities are concerned.

Take, as an example, the three subjects organic chemistry, chemical physiology and clinical chemistry. These, you will find, are, in fact, so closely linked together that it has been found desirable for the Chemistry Department and the Chemical Physiology Laboratory to work very largely in conjunction with one another, while the methods taught in the course of chemical physiology are those which are used subsequently in the clinical chemistry which is practised in the wards.

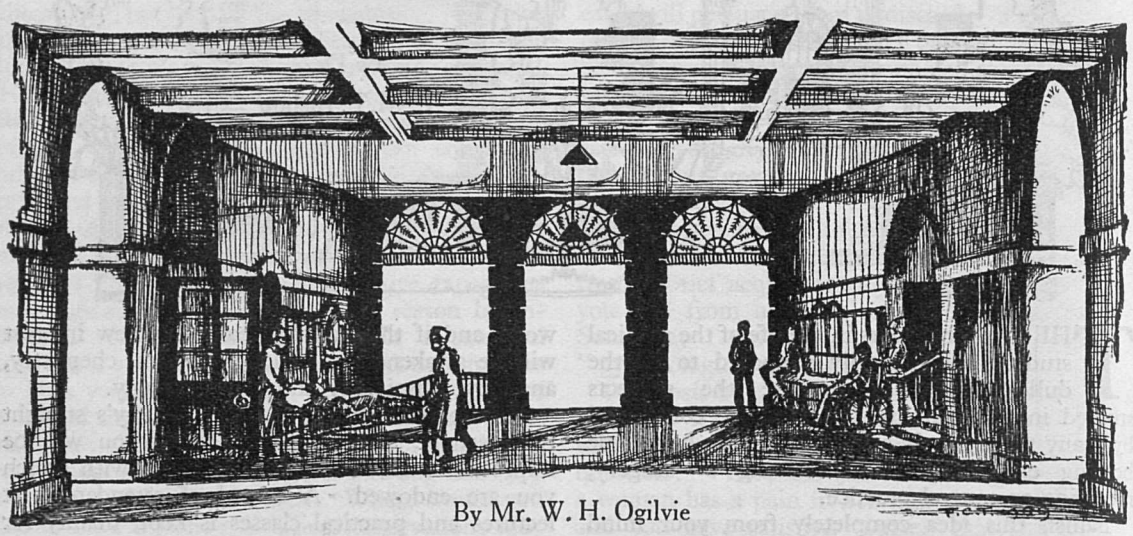
The pre-clinical sciences are designed as a careful preparation for the subsequent clinical work, and if this is fully realised a new interest will be awakened in biology, physics, chemistry, anatomy, physiology and pharmacology.

Most of you will have come to Guy's straight from school, and when you arrive you will be impressed with the relative freedom with which you are endowed. A record of attendances at lectures and practical classes is kept, mainly for the purpose of qualifying you for the examinations. You must realise, however, that these classes are designed to assist you in your work and not to compel you to work. Your life is in your own hands now. If you wish to take an intelligent interest in the manifold activities of the Medical School and of the life of the Hospital, you will be amply repaid. If you abuse the freedom which is given you by escaping from these activities, no one will miss you and no one will care very much. Medicine is a hard training for those who have no inherent interest in it, and the time to develop and cultivate that interest is as soon as you enter the Medical School.

Do not become one-sided. Remember that as a doctor you will come in contact with all kinds and classes of men and women, and you will be expected to take an intelligent part in conversation and to express a reasonable opinion on subjects not directly concerned with medicine. There is no one more boring and depressing than a doctor who has no outside interests, unless it is a group of doctors who can talk nothing but "shop" to each other.

Finally, pay particular attention to taking regular exercise. This not only brings you in contact with your fellow-students, but is essential from the point of view of your health. The Borough is not the most salubrious place to live or work in, and hospital life is strenuous. Try as far as possible to develop an immunity to disease while you are still in the Medical School, by keeping fit and in training.

To Those Entering the Surgical Wards



By Mr. W. H. Ogilvie

GUY'S HOSPITAL rightly enjoys a world-wide reputation as a medical school, which for generations has sent into all parts of the world doctors armed with practical knowledge and with the willingness and ability to take responsibility which a practical training implies. There are two special advantages of the teaching here—the great wealth of material which passes through the wards and Out-Patients' Department, and the responsibility which is given to every man from the very outset of his career. In each appointment he is not taught only, he is asked to carry out essential work for the Hospital and for his patients, and trusted to carry it out well. At the beginning and close of the clinical period stand two appointments which are peculiar to Guy's, Surgical Ward Clerk and Assistant House Physician, and both of them have this combination of responsibility and instruction.

It is on the surgical side of the Hospital that you who are now entering the wards will first encounter the practical side of the profession you have adopted as your life's work, and the human material with which that work is to be carried out. It is as well that it should be so, for here the issues are clearer. Later will come the study of prolonged and progressive disease, of those degenerations which follow upon misspent lives or have causes still unknown, of failures rich in scientific interest, but at present beyond your power to remedy. You will meet much that is depressing. But during your first three months in a surgical ward you will find yourself in one of the most cheerful places in the world, where hope is the keynote, and hard, active, useful work your daily occupation.

For you who have chosen aright, this time will stand out with ineffaceable clearness for the rest of your lives. What has gone before has not been without interest, but the interest was academic. It was like the long drilling on Salisbury Plain, which made the raw recruits into the material of Kitchener's Army. The crossing of the Channel took them from make-believe to real war, the actuality for which all the drill had been a preparation. The rehearsal was over, the curtain was up. And so, in a surgical appointment, you are suddenly in the midst of real life. You are confronted with accidents, sudden infections, grave calamities. In the main it may be said of the patients whom you will encounter, that they are healthy, normal, sane individuals, struck without warning by some sudden misfortune. You are present at this crisis in their lives, and it is in your power to help in fighting it. There is something to be done; and when it is done it is your privilege to see the rewards of victory—the quick recovery and the return of hope.

There is another advantage of starting your career on the surgical side. You are introduced

to disease in a comparatively simple form, and the knowledge of anatomy and physiology which is fresh in your mind enables you to grasp a great deal of what you encounter without the need of lectures or text-books. Very much of surgery deals with local disease, that is to say, there is one faulty structure in an otherwise healthy body. Given a thorough knowledge of anatomy and pathology the teachings of surgery become self evident. Surgical diagnosis is little more than the answering of two questions—what is the anatomical structure involved and what are the pathological processes that have caused the trouble? A man has thrust his arm through a window and a piece of glass has penetrated the forearm. The first question that faces you, "What structures would be encountered from without inwards if an incision were made in such a situation?" is one that you might reasonably be expected to answer in an anatomical paper. The second question, "Which of these structures has actually been divided?" means an investigation of the sensation of the different nerves, and the movements carried out by the muscles and tendons which lie in the path of the injury, and a search for pulsation in the arteries distal to the wound. The treatment is an exercise in anatomy and craftsmanship, very interesting, because the relations which have been memorised by force of will are now brought vividly before you under the bright light of the operating lamp. Your hardly-acquired knowledge makes you not only a sympathetic fellow-man, but one skilled to restore function and promise recovery to the patient.

During these three months you will work very hard, probably harder than you have ever done before, but it is all tremendous fun. Your primary duty to the Hospital is to keep a record of the cases under your care. This you will do as well as possible, both for your own sake and because on the accuracy and lucidity of your account will depend the value of the record in years to come should the same patient be readmitted or should a series of similar cases be investigated for statistical purposes. Besides clerking, however, you will be expected to help in every activity of the firm to which you are attached, from carrying patients to making tea in the dressers' room during "take-in." This appointment is your great opportunity for making yourself proficient. You should familiarise yourself with the somewhat elaborate routine of modern asepsis. You should take every opportunity to watch the dresser looking after your cases, for in the next appointment you will be a dresser yourself, and will be expected to know your work. It is the privilege of the beginner to ask questions, and this you should do in season and out of season. All knowledge which you acquire will stand you in good stead as a dresser, and as a dresser you will have more work to do yourself and less opportunity to learn by watching that of others.

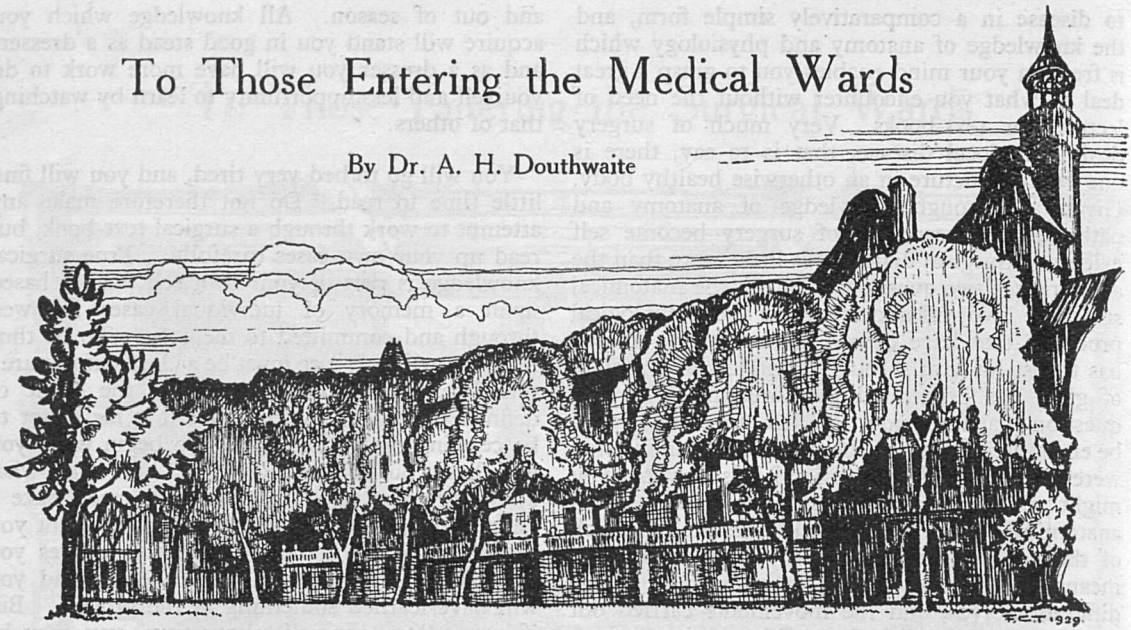
You will go to bed very tired, and you will find little time to read. Do not therefore make any attempt to work through a surgical text-book, but read up your own cases carefully. True surgical knowledge is part of your own self, and is based upon a memory of individual cases followed through and committed to memory. To be thus remembered each case must be a clear-cut picture; therefore begin at once to form the habit of definite decision. At this stage it is far better to be certain than to be right. To begin with, you will have but little knowledge, but with what knowledge you have examine each case, make a definite diagnosis, and decide what treatment you would adopt. Whether the outcome proves you right or wrong, you will remember it, and you will have learned something in the process. But if you allow yourself alternatives you may be tempted to the complacent reflection that one of them at least was right. Any man who could remember all his mistakes would be the wisest surgeon in England at the age of 60.

Be interested in everything in your patients and your fellows; no less in the nursing which completes the cure than in the operation which initiates it. It is an old saying that the wise doctor treats the patient as well as the disease. Enter into human relationships with your patients. They will call you doctor and will hang upon your words, and there is much you can do to make them well besides ministering to their surgical wants. In this side of your work alone you will learn much that will help you to success in after life. At Guy's we are particularly fortunate in our patients. There is no foreign quarter in the Borough, no shifting population. British dockers, navvies, carters, factory hands and their wives and children, come into our wards to be made well. They are fine people and proud of living round the best hospital in England. Their happiness and our good name are in your hands.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

To Those Entering the Medical Wards

By Dr. A. H. Douthwaite



THE physical transition from Medical School to wards is of small moment; it is the complete change in the character of work, the acceptance of actual responsibility for sick people, and, more than all, the observance of their mental reactions which mark this as an epoch of considerable significance. Those of you who come to us from other schools may be struck by the absence of formality which exists at Guy's. Though subjected to criticism from some quarters, it is, I believe, a desirable feature inseparably linked with the policy of producing men trained to be practical, rather than those nurtured on compulsory lectures now rendered an anachronism by a superfluity of textbooks. Rather do we invite you to accompany your teachers in the wards, see the problems for yourselves, ask questions when you will, and argue if you wish. Perhaps you have had mediocre success in the Medical School, and this has led you to doubt your ability to clear the last fences. Banish the fear. The best clinicians often emerge from such unpromising beginnings.

The next few years will be hard; the days of long holidays are over, for a fortnight out of an appointment is the maximum which can be taken lest valuable experience be sacrifiecd. The curtailment of time for relaxation is fortunately well compensated by an infinite variety of enthralling experiences.

As to the planning of your studies, accept the fact that last-minute cramming for final examinations is of no use. The subject is too vast for any than gradual absorption, so it is well to follow some plan from the outset. The Preliminary Clinical Period prepares you thoroughly for the routine examination of patients, and thus prevents waste of time when you enter the wards. Beds and their human contents are allotted to you, and therewith your share of responsibility. The taking of the medical history is the most important step towards arriving at diagnosis. This is primarily your job, and its value cannot be overemphasized, though too often forgotten in a desire to search for physical signs of disease. The ability to sift the relevant facts from matter which obscures can only come with experience. In the meantime, bear in mind the value of facts, as opposed to patients' interpretation of them, and of their presentation in a legible, and, where possible, schematic, form. When writing a report, do so with the thought that on its accuracy may depend the outcome of valuable research undertaken years later. Whenever possible, examine your patient before he is seen by the registrar, and commit yourself to a diagnosis. Progress of the disease, ultimate outcome, treatment given, opinions expressed on diagnosis, should all be entered to make the records of lasting value. Forms are now issued on which you can write down your findings and conclusions, and this should invariably be done. It is the only way to avoid that type of mental dishonesty which leads to brilliant differential diagnoses any one of which can be claimed as a personal success at a later date! This dangerous habit once acquired

is difficult to discard. It meets with but scant respect, however, from the relatives of the sick. Mistakes have a high educative value. They snatch one with a jerk from the danger of self-complacency.

Probably the best plan of study is to concentrate for the first three months on pathology. This entails, of course, frequent visits to the post-mortem room. Given this grounding, symptoms and signs become the natural expression of the disease and their memorising is unnecessary. Probably the most valuable time of the day for the acquirement of practical knowledge is that which follows the afternoon round. It is then that the house physician performs lumbar punctures, collects blood, taps chests and so forth. These procedures should be watched and from time to time you will be given the opportunity of carrying them out yourself. It is now, also, that special signs referred to in the teaching round can be re-examined and thus fixed in the memory. It should be made a point of pride that within a fortnight you should be able to inspect the optic discs of any patient you may choose. Once the knack has been acquired, and it usually comes quite suddenly after several days of disappointment, it will never be lost. It takes many months to be certain of the normal as opposed to the diseased disc, yet recognition of early change may be of the utmost importance in determining a diagnosis and possibly even in saving a life.

The patients in your beds will confide in you possibly more than in the house officers or staff. To them you are their doctor and from you they will try to get confirmation of their fears in respect of illness, or of suspicions in relation to earlier treatment. An immense amount of mischief is caused by the making of unguarded remarks which can be misconstrued. Their avoidance is doubly difficult in a teaching hospital, where a discussion on the problem is too often carried out within earshot of the patients. We all err unwittingly in this respect, and the importance of discretion needs reiterating. The fact that a patient can inspect his own report is deplorable and should be remedied.

Attend Out-Patients when you can. This is the only hospital activity which remotely approaches the conditions which obtain in general practice. The frequent absence of physical signs may be tedious, but precisely for this reason is the experience invaluable in forcing you to rely more and more upon history-taking. It is an antidote to the poison of mechanised medicine, whose virulence increases with every new instrumental aid to diagnosis.

If you have read thus far bear with me to the end, for I shall be brief: Don't live near the Hospital until you have to. Knowledge is not in the air; disease is.

Go away for week-ends.

Take holidays, abroad if possible, and with anybody who is not a medical student or a doctor.

Be active in the Debating Society. The ability to stand on one's legs and talk is acquired painfully by many of us. Its value is inestimable.

Insure your life and health, and join a society for protection against possible legal proceedings as soon as you are qualified.

In moments of despondency remember that Medicine is the only profession which never provides two days which are alike, and in which boredom is a rarity.

To the Dental Student

By Professor H. B. Fenn

PROBABLY one of the first things which will strike all new students is the absence from Guy's of formality and from the Schools of a scholastic atmosphere. With the memories of ordered school days in the not very distant past, this freedom may at first be rather confusing and the lack of control of your studies rather disconcerting. This freedom is more apparent than real, and you will find that you are bound by a tradition of service and hard work. You are credited with having the intelligence to learn from textbooks and from experience and to ask for help and explanation whenever the need arises. All members of the staff from the most recently appointed assistant house surgeon to the senior dental surgeon to the Hospital are at all times anxious to help you, and are not the unapproachable masters of your destinies which you may at first suppose. Go and ask them questions and you'll find that they are quite human.

We rather pride ourselves that it is possible to get a better all-round dental education here at Guy's than anywhere else in the world, but it

means hard work and individual effort. The few who are constitutionally tired may appear to drift happily along with a minimum of effort. No one appears to worry over the fact that they are doing next to no work and are failing exams., but these things are in fact being noted and are apt to terminate in a pressing invitation to transfer allegiance to another hospital.

Some of you may find it difficult to reconcile much of the work you will be asked to do in your first year or two with what you expect to do when qualified. You probably never intend to do your own mechanical work, and so may consider your time spent on dental mechanics as wasted. As a very fair analogy one might cite Mr. Royce, of Rolls-Royce fame. He was one of the most successful designers of aeroplanes and car engines, but started by spending five years as an apprentice in an engineering works, though he never afterwards entered a workshop.

Reading through the syllabus of work which you are expected to get through during the next few years is almost enough to deter anyone from entering our profession, but you will find that systematic daily reading of an hour or two will enable you to take each exam as it comes, in your stride. Failure to read systematically and hectic cramming for the last few weeks before an exam are apt to have dire results.

Fresh air, exercise and games are every bit as necessary as work, and you will find most sports well catered for here. Our football team has struck rather a bad patch, and it is up to you to restore it to its former premier position. Soccer and hockey had a good season, and we ought to have a very good chance of winning the Inter-Hospitals' Boxing Cup this winter.

Finally may I, as this year's President of the Dental Society, urge you all, of whatever year, to take an interest in your Society. Here you will have the opportunity to read papers, give casual communications, enter into discussions and hear the opinions of your contemporaries and others. You will find the meetings interesting and learning to associate with one's fellow-practitioners and lucidly to express one's opinions will always be useful whether in the Services, State or private practice.

To Those Entering the Nursing Profession

APPROXIMATELY a hundred nurses have entered the Hospital for training during the past year. To many this is rather a belated welcome, but it is, perhaps, not too late to wish all a happy and successful career. You have chosen to do work which instinctively has been women's work throughout the ages, and you have chosen a hospital where opportunities for training are second to none.

Modern nursing demands much of those who undertake it. Nursing is a practical art, and so physical skill and dexterity will always rank first in the attributes of a nurse, but as medical science advances so must the nurse's knowledge and power of concentration increase.

In addition, a nurse must be " psychologically minded " to help her to understand the patient's point of view and to appreciate the mental reaction to physical suffering. Yes, nursing demands much, but it is equally satisfying and you will find a busy hospital a world of interest in itself. Nurses in training automatically become associate members of the Guy's Hospital Nurses' League, which organises the recreation clubs, swimming, tennis, etc. Nurses should also join the Student Nurses' Association of the College of Nursing and so become active members of their profession as a whole. The secretary of the Guy's unit is Nurse Thornton. At the present time there is a great need for women within the ranks possessed of initiative and understanding to carry on the good work of developing the profession in the right direction. We await with interest the report of the Government Inter-departmental Committee which is at present inquiring into the organisation and problems of the nursing profession.

During the past year, the training at Guy's has been increased from 3½ years to 4 years to enable nurses to obtain experience in more of the special departments of the Hospital. It also makes the syllabus of lectures slightly less crowded. Another change is to be tried this autumn ; the lectures to the nurses are to be given at 9.30 a.m. instead of 8 p.m.

Good wishes to you all for a very profitable and happy time at Guy's. May the Hospital and the nursing profession be the richer for your having entered.

F. T.

The Medical Curriculum

1. The Sciences

THE matriculated student will, in his first year, study Inorganic and Physical Chemistry, Physics and General Biology, and at the end of this period, provided he has worked diligently in the laboratories, and attended the Lectures and Revision classes regularly, should have no difficulty in passing the First Examination for Medical Degrees. In his second year he will study Organic Chemistry, together with Anatomy and Physiology, and at the end of the second winter, provided, as before, that he has worked steadily from the beginning, should have little difficulty in passing the First Part of the Second Examination for Medical Degrees. Anatomy, Physiology and Pharmacology are then taken as the Second Part of this Examination at the close of the third winter, prior to starting Clinical work in the wards.

From Medical and Dental students who are preparing for the Pre-Medical Examination only six months' work is required, but those entering without previous knowledge of Chemistry and Physics will find that time hardly sufficient, and are usually advised to take the full "year" of three terms, or nine months.

The importance of practical work cannot be too greatly emphasised, and lectures and books can but supplement work done in the laboratory. Guy's men have no excuse for neglecting laboratory work. Students are strongly urged to form early the habit of spending their spare hours, apart from those officially allotted, in one or other of the laboratories. Reading should be left for the evening. After a day in the laboratory, reading a good text-book will be found to give ample scope for thought. "Cramming," or the memorising of words and phrases, without a knowledge of the corresponding realities, is one of the worst intellectual habits a student can acquire, and in the long run invariably leads to failure.

CHEMISTRY AND PHYSICS

The rapidly growing appreciation of the interdependence of some of the physical sciences and medicine renders it unnecessary to emphasize the importance of the study of chemistry and physics in the training of the medical student. Although some of the knowledge gained may be technically important later, the mental training at this stage is of still greater utility, and no conscientious medical student can afford to treat elementary chemistry and physics as inexplicable obstacles to be surmounted by the accumulation of the minimum number of marks in the 1st M.B. examination.

Organic chemistry as a self-contained subject has been abolished in the medical curriculum of London University, and organic and bio-chemistry is now a definite part of the 2nd M.B. examination along with anatomy and the other parts of physiology. Without an adequate preliminary knowledge of elementary chemistry and physics which is tested in the 1st M.B. examination, the student will later find himself greatly handicapped and particularly when he comes to present himself for the 2nd M.B. examination.

BIOLOGY

Biology, like all the sciences, is properly studied in the laboratory, because things seen are better understood and remembered than things read or heard. Animals and plants are the true sources of a knowledge of biology, and more correct than the text-books written about them. Acquire, therefore, the laboratory habit and record carefully what you observe. Use your books as reminders of the things seen. Draw much. It saves you from the habit of verbal memorising. The drawing of a diagram is the best way of testing the accuracy of one's knowledge in a descriptive science like biology. In the laboratory are also demonstrators whose duty it is to clear up your difficulties. Equip yourself with the necessary instruments. A microscope is needed at once. Its purchase requires care and advice. Students have been known to saddle themselves with an instrument that gives them unsatisfactory results for a whole year, and gets condemned in a later microscopical course. This is poor economy, as the difference in price between a good and poor microscope is small. If you are buying a secondhand instrument, bring it to the laboratory for examination by the demonstrators before you complete the purchase.

ANATOMY

Too much emphasis cannot be laid on the importance of the careful dissection of the human body as an aid to the student in learning the subject of Human Anatomy. The man who has not dissected the whole body with average care can never hope to acquire familiarity with the subject, and experience shows that the man who neglects

or "scamps" his dissections—and incidentally endeavours to make up the lost ground by dint of hard reading—has infinitely more difficulty in satisfying the examiners than the man who has completed his dissections conscientiously, even though he may have given much less time to his reading than he might have done. This is, it is true, the sordid examination point of view, but it is, nevertheless, not to be lost sight of.

It is unfortunate that limitations of time and other cogent reasons demand that the student should begin his dissections at the same time as he receives the introductory lectures on anatomy, an arrangement which increases his initial difficulties in the dissecting room. At the very outset he will find himself faced with a mass of facts in which there seems to be neither rhyme nor reason. After a little, however, the fog by which he has been enveloped will begin to lift, and, gradually, he will come to appreciate that what at first appeared to be a chaotic collection of structures, endowed with unintelligible and apparently meaningless names, resolves itself into a reasonable and orderly arrangement of structures, whose names are, for the most part, peculiarly appropriate. There is a danger lest, at this stage, when he is beginning to see daylight, he should occupy too much of his time with the names which must necessarily be given to individual structures. The names themselves have, of course, no intrinsic value, and are merely used to facilitate description. Attention should be devoted instead to discovering the functions of the structures displayed by dissection and to observing the relationship which exists between function and structure. Throughout his whole period in the dissecting-room the student should seek to correlate his Anatomy and his Physiology. If he does so he will find that he is simplifying the task in hand, for the one subject will help him with the other.

It is important, too, to appreciate that while the cadaver is being dissected the topographical information acquired by this means can be applied to the living subject. Most of the superficial structures and many of the deeper ones can be recognised either by the eye or by the hand in the living body, and the student should learn to identify on his own person, so far as is practicable, the various bony points, muscles, tendons, etc., which can be seen or felt. He should also endeavour to visualise on himself the position of the deeper structures which present no surface landmarks. After all, when he enters the wards, and in after life, he will have to deal for the most part with living patients, and, apart from actual surgical operations, he will be compelled to visualise on their bodies the position of the structures which he has dissected in the cadaver. The correlation between the dissected subject and the living body is difficult only when it is regarded as a separate section of human anatomy to be learnt from books, after all the dissections have been completed and in the last few days before the professional examination. The student, therefore, must constantly strive to form mental pictures of the regions as he dissects them, and to project these pictures on to his own body. In this part of his work he will derive added interest and help from the instruction given in the department on the structure and function of the living body as demonstrated by the use of X-rays.

Once he has obtained a reasonable knowledge of the general anatomy of the body, the student who possesses any imagination will find Human Embryology a fascinating subject. Here he will find the explanation of much that may have hitherto appeared to be inexplicable, and here, too, he will see modifications of function and structure proceeding side by side.

The Guy's student is fortunate in having a modern and well-equipped department in which to work. In addition to the material which is always available in the dissecting-room and in the specimen rooms, the famous Towne collection of wax models, which is housed in the Anatomical bay of the Gordon Museum, can and ought to be utilised freely for study and for reference.

PHYSIOLOGY

Before the student can hope to appreciate the abnormalities and disturbances of function which form the material for his clinical studies, a sound knowledge of the normal function of the body is essential. Physiology is the science which supplies this basic knowledge and the student who obtains a firm grounding in this subject reaps his reward.

Physiology is a science which is entirely based upon the triad of experiment, observation and deduction. For this reason its study is of inestimable value for the training of the mind in the powers of logical reasoning. The major part of the course consists of experimental work in which the student is able to see for himself and draw his own conclusions; this makes the subject extremely interesting, and relieves the student from a heavy burden of hard facts which can only be retained by a feat of memory.

The practical classes are divided into three groups. In the experimental class the student records and measures the activities of living tissue from frog and mammal. In the chemical class he studies the composition and reactions of biological material. In the human class he makes

observations upon the human subject. In all classes stress is laid on those aspects of his work which have a direct bearing on his future studies, so that he should carry into the wards a knowledge of the more important biological processes.

As a guide to the student in his studies a course of lectures is given each year; this serves, not so much as a source of actual information, as a means of correlating and balancing the student's knowledge. Observations, which may be quite dissociated in the student's mind, can be brought together—woven into a complete whole. In addition, clinical demonstrations are given to the senior students each week, and these serve as an introduction to the application of physiological principles in the study of the disturbances associated with disease.

The student is advised to begin his reading of Physiology with an introductory book such as Crandall's "Introduction to Human Physiology." The choice of text-books is large, but Halliburton's "Handbook of Physiology" or Starling's "Principles of Human Physiology" should satisfy his needs. There is a small library in the Physiological Department, and students may borrow works on special subjects.

PHARMACOLOGY

Pharmacology is the study of the action of medicinal substances on the normal body. It is the basis of all methods of chemical treatment and forms an important natural scientific link between physiology and practical medicine.

A preliminary knowledge of physiology is essential. The student is introduced to the subject before his clinical period, but cannot realise its full significance until he has come face to face with the actual problems of therapeutics in the wards. A short revisional study at this stage of his curriculum is strongly recommended.

A six months' course of bi-weekly lectures and demonstrations is given during the two winter sessions, and should be attended by all students. Revision classes are provided for each of the four examinations of the Conjoint Board yearly. Candidates for the B.M. (Oxford) must also attend the practical classes which begin in January.

Lectures.—On Mondays, 4 p.m., Fridays, 1.15 p.m., in Physiology Theatre, starting Friday, October 7th.

Demonstrations.—Details to be announced later. In Pharmacology Laboratory. Dates to be announced during lectures.

Revision Classes (Conjoint).—To be held in November in Pharmacology Laboratory. Dates to be announced later.

Text-books.—Dixon's "Manual of Pharmacology" is the most suitable text-book for general use. Gunn's "Introduction to Pharmacology and Therapeutics" summarises the subject in a readable way and is invaluable for revision purposes. The practical classes are based on Sollmann and Hanzlik's "Experimental Pharmacology," but Dixon's "Practical Pharmacology" is sufficient as a short laboratory guide.

A comprehensive Departmental Library is available for those more deeply interested in the subject.

2. Pre-Clinical Period

THE extension by the Examining Bodies of the student's curriculum of study has allowed the addition of an extra period of three months' preliminary instruction before the student actually embarks on his duties in the wards

It has long been felt that the time allotted to the study of Medicine, in the limited sense, has of late years been encroached upon and curtailed by his duties in the Surgical Wards and the Special Departments, and the opportunity was gladly seized of redressing the balance by giving him extra tuition in medical subjects.

The object of the Pre-Clinical Period is to instruct the student in the routine methods of examination of patients and in the detection and interpretation of physical signs, so that on his entry into the Medical Wards he will be able immediately to derive full benefit from the teaching of the Registrars and Physicians without the laborious explanations and tedious insistence on elementary points necessary before the introduction of the scheme.

In addition to this instruction, which he receives from the Clinical Tutor in charge of the course, the student gets a course of Clinical Chemistry from Dr. Ryffel and Dr. Waterfield, Elementary Pathology, Minor Surgery and Bandaging from the Surgical Registrars, and instruction in the methods of examining the eyes, ears, nose, etc., from the heads of the departments concerned.

3. The Wards

SURGICAL WARDS

THE appointment of surgical ward clerk is the first of the appointments held by the student during his Clinical training. In many ways it is the best of all the appointments, as most of the teaching, both by the Surgeon and the Registrar, is for his special benefit. Furthermore, a reputation for keenness and ability earned in those early days will follow him and help him throughout the rest of his time at the hospital. Each clerk is attached to one of the surgical units for three months, and it is his duty to record the history and progress of the cases allotted to him.

The wards are open to the student at 10 o'clock, and he should have written up the history of the case and, as far as possible, have examined the patient before the Registrar of the unit begins his round at 10.30, when each case is discussed and the report of the clerk confirmed or amplified. The student during this period will do well to confine most of his attention to the detection of the physical signs, and should procure from the Medical School Office a copy of the red book entitled *Instructions in Case-Taking, Surgical*, which he will find a very good guide to sound and systematic examination of the patients.

While he is acting as ward clerk the student attends a course in Elementary Pathology and Pharmacology, and at the same time has unrivalled opportunities of seeing dressings and operations, more especially during his "take-in" week. There will be much hard work, and many late hours, but there will be also incalculable compensation in seeing and learning the practical points that will stand him in good stead. He is doing his own work of ward clerk, but must remember that he is learning also to be a dresser.

As a dresser the student spends two periods of three months. While the surgical work is very dependent on the dresser for its smooth efficiency and good results, the dresser must realise that he himself is very dependent upon his work, for it is during these six months that he lays the foundation of his surgical knowledge and sound after-care. Someone has said that every surgeon should be his own dresser, so that the dresser must appreciate the responsibilities that he assumes in thus deputising for his surgeon.

We have said very little about the actual tasks of the dresser; he should read the "standing orders" relative to his appointment, and from then on everything depends upon himself. He has been given a valuable appointment and one difficult to do well, but one that repays hard work almost more than any other appointment he can hold.

MEDICAL WARDS

To each medical ward clerk is allotted a certain number of beds, and he is expected to examine and write full reports on all patients who are admitted into these. Occasionally, it so happens that a patient is too ill to be examined except by the House-Physician and Physician, or that a case dies before the ward clerk has had an opportunity of seeing it. In these circumstances he should obtain the history and an account of the symptoms, physical signs and progress of the case from the House-Physician, and should base his report on these data. It cannot be too strongly insisted that a report, however brief, must be written on every case, and it is of the greatest importance that *the diagnosis and remarks made by the Physician should be entered at once into the report*. Moreover, any errors detected by the Physician or Registrar in the original report should be immediately corrected. In the event of a patient dying, the ward clerk must obtain the abstract of the post-mortem findings and carefully enter it up, and it need hardly be said that all clerks should make every effort to see the post-mortem examination of any case they may have seen during life.

The medical wards are open to clerks from 10 till 12 noon, and from 1.30 till 6.30 in the evening. The Registrars begin their rounds at 10.30, and by that time a clerk should at least have full notes of the history of any new patient who may have been admitted into one of his beds, and he should have a full report in readiness for the Physician in the afternoon. Ward clerks should realise that they are expected to know the details not only of their own cases, but of every patient under their Physician. It is no excuse to plead ignorance because "this is not my case." If a clerk will only take the trouble to make himself conversant with each case in this way he will find at the end of his six months that an enormous amount of clinical material has passed through his hands, and he will probably have acquired enough knowledge of medicine to enable him to pass the Conjoint Final with but little additional reading. But so many men waste their time through sheer laziness in the medical wards, never realising that they are throwing away experience which would prove invaluable to them later on.

Again, the curriculum provides but six months for the study of pure medicine, whereas nine months are allowed for the pursuit of surgical appointments. Further, during their period of medical clerkship men are apt to take more time than is justified for the study of Pathology and Bacteriology, which they have neglected whilst in the Surgical Wards.

An hour spent in the wards after tea three or four times a week will give opportunities not only for going over cases and writing up reports, but also for seeing the House-Physician tap chests and abdomens, etc. The treatment, too, which each case is receiving, may well be studied at this time.

As regards reading, the best method is to study the text-book account of each disease as one comes across it in the wards or in discussion, and afterwards to compare, if possible, the text-book description with the symptoms and signs presented by the patients. At the same time the most important medical journals should be read regularly, for by this means only can the student keep himself in touch with modern work. The *B.M.J.* and the *Lancet*, the *Quarterly Journal of Medicine*, as well as the *Journal of the American Medical Association*, are especially recommended.

Books that may be recommended are the following: The well-known text-book by Osler, Dr. Poulton's revised edition of Taylor, Dr. Conybeare's *Text-book of Medicine*, and *Physical Diagnosis* by Cabot. For second three months ward clerks, the most important monographs in Allbutt's or Osler's *System of Medicine* will prove valuable and interesting reading. For laboratory work Hutchinson and Rainey's *Clinical Methods*, or Dr. French's book will be useful.

OBSTETRIC & GYNÆCOLOGICAL WARDS

After finishing appointments in the Medical and Surgical wards the student is posted to the Obstetric Department for six months. During the latter half of this time he is also attached to the Physician for the Diseases of Children. The Obstetric Dresser is responsible for case-taking in the wards and at Out-Patients, assists at operations, and during one month acts as Extern in the Maternity Charity.

As an intervening link between the Obstetric and Children's Departments is the Salomons Centre, in which the health of mothers and infants is fostered by the practice of preventive medicine.

With this wealth of clinical material it should be possible for every student to obtain a sound knowledge of methods of diagnosis and treatment founded on no small experience. It is, however, recognised by teachers of Gynæcology and Obstetrics that this desideratum is not always attained. It is undoubtedly true that many a young practitioner has to admit a regrettable ignorance of the ailments which afflict his female patients and of the proper management of the pregnant, parturient and lactating woman. And these subjects form the foundation upon which a successful family practice is built. Responsibility for this sad state of affairs hardly rests with the student, but he will do well if he starts his clinical work with the firm determination to avoid the pitfalls that beset his feet. He must realise that practical experience in diseases peculiar to women cannot be acquired in the space of the three months which he will spend in Queen Ward. As he passes from one appointment to another he must resist the tendency to develop the compartmental mind and must endeavour to cultivate a wide outlook on medicine as a whole.

The study of the physiology and pathology of the functions of woman should be begun at the outset and continued throughout the period of clinical training. The man starting as Surgical Ward Clerk should include among his initial purchases a text-book on Gynæcology, for purposes of reference, and should make a point of attending the lectures of the Obstetric Surgeons. He should also avoid no opportunity of acquiring the " tactus eruditus " so essential to the accurate diagnosis of pelvic disorders; the inherent impossibility of permitting a class of students to examine women patients one after the other renders it imperative that this experience be gained over a considerable period of time.

The study of midwifery he may well leave until he becomes an Obstetric Dresser; the art of the accoucheur cannot be learnt from books.

4. Pathology and Bacteriology

PATHOLOGY

WHEN the student has passed the Second Conjoint or M.B. Examination, he is halfway through his medical curriculum, and he should have gained a working knowledge of the functions of the body in health. This knowledge is an essential preliminary to the study of the most important of the medical sciences, viz., Pathology, or the study of the functions of the body in disease. Throughout his life the student, if he continues to study and practise medicine, must ever keep pathology in the foreground. It is desirable, therefore, that the study of pathology be begun as soon as possible and continued throughout a medical career.

The subject is an exceedingly large one, and it

is customary to divide it into several sections :—

1. General Pathology ;
2. Morbid Anatomy ;
3. Morbid Histology ;
4. Functional Pathology ;
5. Chemical Pathology.

During the pre-clinical period the student must attend classes and demonstrations in elementary pathology, bacteriology and chemical pathology.

During the Autumn, Spring and Summer Terms systematic lectures and demonstrations in pathology and bacteriology are given. Three lectures and three practical classes are held weekly, the former from 9 a.m. to 10.30 a.m. and the latter at 12 noon.

Regular attendance at these classes is imperative, and the attractions of the wards and of clinical work should on no account be allowed to interfere with laboratory studies.

Apart from set lectures and classes, senior students and house-officers are cordially invited to make use of the resources and facilities provided by the laboratories, and especially to attend the weekly Demonstration of Post-mortem Room specimens on Friday afternoons.

Every man should, as far as is practicable, follow out the pathology of each and every one of his cases.

Is a bacteriological investigation to be made ? He should follow it out as far as possible. Is a portion of tissue removed for microscopical examination ? He should see and examine the section. Is a chemical examination demanded ? He should endeavour to see the analysis carried out. He should never miss an autopsy on any one of his cases, and should make a point of keeping a special note-book in which he can enter the clinical history and progress of a case, the post-mortem findings if the case comes to autopsy, and the result of the histological examination together with a general review of the case in the light of that further evidence.

Set hours cannot be given for these lines of study ; they must be fitted in as time and opportunity permit. In short, efforts should be made to see as much practical work and as many demonstrations in pathology as can be arranged. There are few days when no pathology can be learned. Post-mortems are held every day at 1.30 p.m., except on Wednesdays and Saturdays, when the hours are 12.30 p.m. and 11.30 a.m. respectively. Attendance at these will amply repay the time expended.

Informal classes in Pathology are held twice weekly, and in Bacteriology once weekly, during the October and May terms. These, though primarily intended for M.B. students, are suitable for, and should be attended by, those sitting for Part I of the M.B.Cantab. and the Final M.B. of Oxford or London University.

During the later clinical appointments certain students may hold a few pathological posts, such as Student Demonstrator in Pathology or Student Assistant in the Bacteriological Department.

There are many books which might be recommended, and what suits one student may not prove attractive to another. The following, however, will prove adequate for all the students' purposes : in Pathology, Boyd's Textbooks or MacCullum's or Muir's Manuals ; in Morbid Histology, Barnard's Handbook ; in Clinical Pathology, Panton and Marrack ; and for Bacteriology either Muir and Ritchie's Manual, Bigger's Handbook, or Ziusser's Bacteriology.

BACTERIOLOGY

Bacteriology, although for a time regarded by the clinician as affording information of merely academic interest, has now made a most profound impression upon the theory and practice of both medicine and surgery, and by providing specific treatment for many microbial infections has emphasised the necessity and stimulated the demand for exact diagnosis, and it is towards this direction that the student's interest is guided by the class in Practical Bacteriology.

Particular attention is devoted from the beginning to the technique of various investigations undertaken in connection with ward work. Thus the student himself examines sputum, pus and morbid exudates by various methods to demonstrate the associated bacteria. He is instructed in staining methods and the practical work of culture making, and is, moreover, encouraged to repeat for himself during the intervals between successive classes any observations and experiments previously carried out.

Demonstrations are also given upon the life history of the most important of the organisms which are pathogenic to the human race, and the various means by which they attack and damage the tissues made clear. In this way the close link between bacteriology and biological chemistry is clearly brought out.

Throughout the course considerable stress is laid on the further applications of bacteriology to treatment, including the use of various remedial agents such as sera and vaccines, which have been elaborated in the bacteriological laboratory. At the same time the student learns those facts and theories relating to natural and acquired immunity upon which bacteriological therapy is based.

5. The Special Departments

THE CHILDREN'S DEPARTMENT

In-Patient Accommodation.—Dr. Cameron has under his care 2 beds and 16 cots in the Children's Ward. We are glad to be able to say that soon there will be more adequate arrangements for the treatment of sick children within the Hospital. On two days in the week, at present on Tuesdays and Thursdays at 2 p.m., Dr. Cameron goes round the ward and gives clinical instruction. Afternoon rounds are also conducted by Dr. Ellis.

Out-Patient Department.—Children under 10 years of age are seen in the Children's Department at Out-Patients on Mondays, Wednesdays and Fridays from 9.30 until 1 o'clock. Dr. Cameron attends on Mondays at 10 a.m., and Dr. Ellis on Wednesdays and Fridays at 10 a.m., when clinical instruction is given.

The Salomons Centre is for the care of the mothers and children of the Midwifery Charity; attendances at the Centre are made by dressers in the Obstetric Department.

OTO-RHINO-LARYNGOLOGICAL DEPARTMENT

This Department is organised on the unit system. There are two units, one under the care of Mr. Mollison, the other of Mr. Layton, and Mr. Cann is the Assistant Surgeon. Patients are seen in the Out-Patient Department, admitted when necessary to the special wards, Dorcas and Christopher, and returned to the Out-Patient Department. This arrangement allows members of each unit to follow up the cases. Mr. Mollison's firm sees out-patients on Tuesdays and Fridays at 12.30 a.m., Mr. Layton's on Mondays at 9 a.m., and Thursdays at 12.30 p.m.

Dressers are appointed to the respective firms, and have every opportunity of becoming expert in the technique of examination of the ear, nose and throat, and of gaining experience in diagnosis and treatment. Large numbers of school children are seen. Minor operations are performed in the Out-Patient Department; these include, amongst others, operation for the removal of nasal and aural polypi, and for the lavage of the maxillary antrum; these operations are performed under the supervision of the Surgeon or the Clinical Assistant.

Twenty-seven beds and six cots are now allotted to the Department, and each firm operates twice a week. Mr. Mollison and Mr. Layton "take-in" during alternate weeks, and emergencies are admitted under the care of the firm on duty.

THE OPHTHALMIC DEPARTMENT

The Ophthalmic Department of the Hospital is in charge of the two Ophthalmic Surgeons, Mr. Morgan and Mr. Law. They are helped by three Assistants, one House Surgeon and Dressers. The Dressers are appointed four times a year for a period of three months, and assist the Surgeons at Out-Patients and at operations, and are responsible for the recording of the cases both in the wards and at Out-Patients. The Ophthalmic Department is an open field for any student to explore as far as he is willing and able, the amount of clinical work being sufficiently great for him to see all the more ordinary and common diseases of the eye in the space of three months.

The student will soon find that he is quite unable to form any opinion of his own on an ophthalmic case until he has mastered the use of the ophthalmoscope and can readily and accurately decide what is the refraction of the eye, and if the "fundus oculi" is healthy and normal. The theory of retinoscopy can be taught and is simple; the practice, however, requires constant application by the student before he can hope to obtain any sort of facility in it. The difficulties are mainly initial ones, and any time and trouble expended in mastering them will well repay any man in after life when he has qualified and is in practice.

Twenty-two beds and 2 cots are allotted to the Department in Eye Ward, and the firms attend Out-Patients as follows: Mr. Morgan, Tuesday and Friday at 12.30 p.m., and Mr. Law Monday and Thursday at 12.30 p.m.

COMBINED ROUND

A Clinical Demonstration of selected cases for students and graduates is given on Tuesdays at 2.15 p.m. by Sir Arthur Hurst, Dr. Conybeare, and other visiting Physicians.

NEUROLOGICAL DEPARTMENT

This Department is under the direction of Dr. C. P. Symonds and now provides facilities for a full three months clerkship, which offers excellent opportunities to those who desire practical experience in one of the most difficult branches of medicine. Tuesday and Friday mornings are devoted to Out-Patient work; Dr. Symonds holds a teaching round on Thursday mornings in the Eye Ward, while the Registrar goes round on Mondays.

DEPARTMENT OF PSYCHOLOGICAL MEDICINE

This is now separated from the Neurological Department and provides a full three months course of Clinical tuition. In addition to Lectures and Clinical Demonstrations held at a mental hospital during the summer term, Dr. R. D. Gillespie is also responsible for a series of addresses on Normal Psychology during the spring session. Out-patients are seen on Tuesday and Friday mornings at 10 a.m.

THE DERMATOLOGICAL DEPARTMENT

Out-Patient Days.—Dr. Barber : Mondays and Thursdays at 9 a.m.

Dr. Forman : Wednesdays at 9 a.m.

Wards.—There are three male and three female beds in the Eye Wards, one female in Mary Ward and one male in Bright Ward for Dermatological cases requiring careful supervision or treatment in bed.

Instruction in the diagnosis and treatment of diseases of the skin is given in the Out-Patient Department, and clinical demonstrations on selected cases are held from time to time.

THE GENITO-URINARY DEPARTMENT

The Genito-Urinary Department is under the care of Mr. Doherty, who sees patients on Tuesdays and Fridays at 1.30. A large variety of cases can be seen. The in-patient beds are for the most part devoted to patients requiring severe operations, and are now all in Patience and Samaritan Ward.

Students should realise that their attendance at this Out-Patient Department is very necessary, as is evidenced by the very advanced state of disease in which some patients arrive for examination.

THE ORTHOPÆDIC DEPARTMENT

The Orthopædic Department comprises a large out-patient clinic and nineteen beds devoted to patients suffering from deformity. Out-Patients are seen on Monday and Thursday afternoons, and Minor Operations performed on Wednesday afternoon, and in the Out-Patient Department the student will meet with every variety of deformity, congenital and acquired. Considerable facilities are afforded for experience in the relief and cure of all chronic diseases of bones, joints, muscles, etc. Instruction in the principles and most modern practice in the use of appliances, plaster technique, and the more useful forms of Physio-Therapy is given by Mr. Lambrinudi and Mr. Stamm the Orthopædic Surgeons, and the Registrar. Numerous operations of a minor nature are done, such as manipulations for stiff and painful joints, correction of misshapen and rickety limbs, correction of scoliosis and immobilisation of tuberculous joints.

The in-patient beds are devoted to the most serious operative cases, such as extensive tendon transplantations, correction of malunited fractures, bone-grafting, the making of new joints, etc. Guy's is a pioneer hospital in possessing an excellent workshop for the manufacture of every form of splint and appliance.

It is in the Orthopædic Department that the principles underlying the mechanical disabilities of the limbs and spine are emphasised and their explanation made clear, and the experience to be gained here is invaluable. The great utility of orthopædic surgery became evident to very many during the war.

THE TUBERCULOSIS DEPARTMENT

The Tuberculosis Department is a reference Department for out-patients suffering from diseases of the chest. Patients attend on two days a week, Thursday afternoons and Monday evenings. For suitable cases arrangements are made for admission to sanatoria. The patients return to the Out-Patient Department after leaving the sanatorium. The Department provides extensive opportunities for studying methods of investigating early and doubtful cases of pulmonary tuberculosis, also for observing special forms of treatment such as artificial pneumo-thorax. A special appointment is now connected with this Department.

THE DEPARTMENT FOR VENEREAL DISEASES

This is a daily clinic instituted in 1917, in conjunction with the London and Home Counties Scheme for Venereal Disease treatment. There are also a small number of beds for cases needing in-patient treatment. The number of new cases last year was 1,787 and attendances of patients totalled 57,096.

Senior students are appointed as dressers to the Department for a period of three months. They have ample opportunity to see the medical conditions, public health, social and domestic pro-

blems associated with these diseases, as well as modern methods of diagnosis and treatment.

Dressers in the Gynæcological Department may attend on Tuesday evenings when cases of venereal disease in women and vulvo-vaginitis or congenital syphilis in children are demonstrated.

PRACTICAL PHARMACY AND DISPENSING

One of the many important things all medical students must know is how to write a prescription. It may even be necessary for the majority, when qualified, to be able to dispense the same. All students, therefore, would be well advised to acquire as much knowledge of the subject as they can.

The student is taught, practically, how to dispense the different medicinal preparations; he learns to write prescriptions, due regard being paid to doses and incompatibilities.

The course is conducted by the Hospital Pharmacist.

THE MASSAGE DEPARTMENT

Massage as a training for women has been taught in England since 1888. Guy's Hospital opened a training school for non-resident women in 1913. The training extends over a period of twenty months and covers a very comprehensive course in Anatomy, Physiology, Theory of Movement and Applied Treatments by Massage and Medical Gymnastics for most surgical and medical conditions.

Applicants desirous of entering for the course must produce satisfactory evidence as to conduct, character, and education, with a minimum age of 18½ years. There are two terms of entry each year, one in March and one in October.

On completion of the training the students enter for an examination arranged by the Chartered Society of Massage and Medical Gymnastics. This body has a membership of over 10,000 on its register. It provides for a Register which is available to the medical profession and ensures an adequate supply of qualified workers.

Patients are given daily treatments from 1.45 to 4.30 p.m. on Monday, Tuesday, Thursday and Friday, and from 9 a.m. to 12 mid-day on Wednesday and Saturday.

The treatments include massage and re-education of normal function, whirlpool, wax and foam baths. Special classes are held in the afternoons from 2.15 until 4 p.m. for asthma and rheumatoid patients, flat feet, mobilising of stiff limbs and backs, training of posture and weight reducing. Most of the class work is done to music, which is invaluable in training rhythm and relaxation.

Manipulative Clinics are held twice a week :—

Tuesdays at 2.30 p.m.	Dr. Crisp.
Wednesdays at 11 a.m.	Mr. Mayer.

Members of the Medical Staff and medical students are cordially invited to inspect the methods used for restoring, as far as possible, normal functional use of the body.

During the past year the Fracture Clinic has been conducted three mornings a week in this Department :—

Mondays	Mr. Lambrinudi.
Fridays	Mr. Ogilvie.
Wednesdays	

—The Orthopædic and Surgical Registrars.

ELECTRICAL AND ACTINO-THERAPEUTIC DEPARTMENT

The treatments carried out in this Department include the following : diathermy, high frequency, the application of the constant, faradic and sinusoidal currents, radiant heat, and static electricity, treatment by the Finsen and mercury vapour lamps and radiotherapy.

A special Department has, for some time, been open for artificial sunlight treatment.

A large number of cases are treated in the Department : Chronic joint conditions, nerve injuries, wasted muscles, skin diseases such as ringworm, psoriasis, eczema and rodent ulcer. There are also a large number of cases of malignant disease undergoing treatment with X-rays and radium

6. Books

ADVICE on this matter is extremely difficult to give, for individual needs are almost as varied as the length of individual pockets, and the adornment of a virgin bookshelf is bound to depend on both these factors. Except in the case of certain essentials for routine work, such as the dissecting room manuals, it is perhaps better to postpone the inevitable visit to the bookseller and first to consult the various tutors and demonstrators in the subjects concerned. They will be more than willing to extend any suggestions made under various headings in this issue of the *Gazette*, and their experience will enable them to advise that blend of old and new best fitted to the individual case.

The rapid advance in medical knowledge un-

fortunately renders the second-hand book almost worthless except in the case of Anatomy, where the advances, though many and real, are not apt to be so revolutionary as in Physiology and Medicine itself. A Physiological text-book probably becomes out of date in less than a year, a text-book of Medicine in two or three years at least, so that in these subjects at any rate recent editions are essential.

All that is most distinctive in current Guy's teaching is to be found in the *Guy's Hospital Reports*, which contains articles written for the most part by members of the Hospital Staff. The unqualified man has the special privilege of purchase at a much reduced price, an advantage that he will be wise not to neglect.

A great number of publishers are responsible for medical books, and a just estimation of the rival claims for their various productions is quite beyond the scope of this article. Mr. Humphrey Milford at the Oxford University Press offers a wide range of medical works of uniform excellence in subject matter, binding and printing. Messrs. J. & A. Churchill publish Taylor's "Medicine," edited by Dr. Poulton, Romanis and Mitchiner, the *Recent Advances Series*, and many other well-known works. E. & S. Livingstone, of Edinburgh, publish books containing the valuable teaching that emanates from both sides of the Tweed. Many splendid books are published by Baillière, Tindall & Cox, Cassell & Co., Ltd., Edward Arnold & Co., Ltd., and John Wright & Sons, Ltd., while H. K. Lewis & Co., of Gower Street, sponsors a number of books in nearly every branch of medicine. Messrs. Lewis also run an excellent medical circulating library, familiar to generations of medical students, which should prove invaluable to the man who wishes to dip briefly into all the latest books. This is assisted by reference to their catalogues. Messrs. Foyle, of Charing Cross Road, specialise in second-hand books.

Mr. H. H. Grattan, in the Borough High Street, is able to supply most of the books in common demand over the counter; any others he can be relied upon to obtain as quickly as possible.

The Dental Curriculum

THE Dental Student is supplied at the Medical School Office with the Prospectus, Standing Orders, Lists of Instruments, Calendar and Clubs' Union Book.

These pamphlets should be carefully read in order that acquaintance may be made with the general arrangements of the School and the scope of the work upon which the student will become engaged.

Notices regarding the time and place of Lectures are to be found posted up by the main entrance and at the head of the Main Staircase in the Dental Department, and on the notice board outside the Medical School Office.

Instruments having been purchased at a dental depot, the student should satisfy himself that he has been supplied with all of those described in the Hospital list, and have them inspected by his demonstrator.

It is inadvisable to purchase instruments before they are needed. Instruments for prosthetic work are required for the B.D.S. course at the beginning of the second year, and for the L.D.S. course at the beginning of the first year. Clinical instruments are required for the B.D.S. course at the beginning of the fourth year, and for the L.D.S. course at the beginning of the third year.

Among the various depots at which instruments may be purchased are the following: The Amalgamated Dental Co., 26, Broadwick Street, London, W.1, and 12, St. Thomas's Street, S.E.1; The Dental Manufacturing Co., Brock House, Gt. Portland Street, W.1, and 2, Maze Pond, S.E.1; Cottrell & Co., 15-17, Charlotte Street, W.1; L. Porro, Ltd., 33, New Cavendish Street, W.1; The S. S. White Co. of Great Britain, Ltd., 126, Gt. Portland Street, W.1, and 35, Borough High Street, S.E.1. Students must arrange to have the handles of all instruments stamped with their initials. The Dental Companies have agreed to undertake this for a small additional charge. Students are advised not to purchase equipment or instruments from other students without first referring and submitting these to a member of the Staff.

The course of study for the B.D.S. London covers a period of five years, of which the first year consists of Chemistry, Physics and Biology. The second year is occupied with the study of General Anatomy and Physiology, General Histology and Dental Prosthetics. The study of Dental Prosthetics is continued during the third year, together with Dental Metallurgy. The subject of Special Anatomy and Physiology, Dental Histology, Medicine, Pathology and Bacteriology constitute the fourth year's work, and the fifth year is occupied by General Surgery (Lectures, Demonstrations and Dressings), Operative Dental Surgery, Orthodontics, Dental Materia Medica, Dental Bacteriology and work in the Conservation Room.

L.D.S. students present must pass the Pre-Medical Examination in Chemistry and Physics before they can begin their four years' professional study. Students who pass the Pre-Medical Examination after July 1st, 1939, will come under the new regulations obtainable from Medical School Office. Subsequently, their first term is devoted to Dental Mechanics and Elementary Anatomy and Physiology, and it is important that the student gets a good grounding in the former at this early stage. During the remainder of the first year the student continues his work in these subjects and takes Part II of the First Professional Examination at the end of the first year. In his second year he completes his training in Dental Mechanics, studies Special Anatomy and Physiology, Normal Dental Histology and Dental Metallurgy, and takes Part III (Special Anatomy and Physiology) of the First Professional Examination at the end of the second term, and Part I (Dental Mechanics and Metallurgy) at the end of the second year.

Third-year students for the L.D.S. begin the Clinical courses with a period of probationary work upon the phantom head. The operative course, conducted by a Staff demonstrator, is very comprehensive. It includes most of the operations that the student will subsequently be called upon to perform upon patients, namely, gold and other fillings, crowns, inlays and the treatment of pulpless teeth. These operations upon the dummy form an excellent groundwork in operative dentistry.

Thereafter the course of work consists in holding and diligently carrying out the work of the following appointments: *Probationer Dressership in the Conservation Room; *Dressership to the Director of the Conservation Room; *Dressership in the Conservation Room; *Dressership in the Children's Department; Dressership in the Local Anæsthetic Extraction Room; Dressership in the General Anæsthetic Extraction Room; Casualty Dressership; Clerk to Anæsthetist.

In addition, the students prepare for the Final Examination, Part I (General Surgery and Pathology), which is taken at the end of the third year of study, and attend the courses in General Surgery, General Pathology, Bacteriology and Medicine. Students are reminded that no course of study for this examination is recognised until Parts I and II of the First Professional Examination have been passed.

During the fourth year, students continue with their appointments in the Conservation Room, Anæsthetic Room and Children's Department, and, in addition, attend the courses of instruction in preparation for Part II of the Final Examination, *i.e.*, Dental Surgery, Operative Dental Surgery, Orthodontics, Dental Materia Medica, Dental Bacteriology and Radiology.

No students, apart from those holding the post of Assistant Dental House Surgeon, are allowed to work in the Conservation Room unless holding one of the appointments marked *, and application for these appointments must be made by the student quarterly, in March, June, September and December. A helpful pamphlet is available at the Medical School Office, perusal of which will indicate when and for what posts to apply.

Students are required to be punctual in their appointments with Hospital patients. There is nothing more irritating and annoying to a patient than to be kept waiting unnecessarily; it also delays to a very great extent the easy working of the Department, and is detrimental to the public esteem of the Hospital. Further, the student should always remember to cultivate a courteous and gentle manner towards his patients.

Dental students will profit by following the practice of the Special Departments of the Hospital, *e.g.*, Throat and Ear. They will also have numerous opportunities of observing the more remote effects of dental disorders in the General Wards and Out-Patient Department.

Students in difficulties about their work and needing advice are invited to consult the Dean, Sub-Dean, Administrative Dental Officer or any other member of the Staff, who will be pleased to do what they can to promote their interests.

Guy's Hospital Clubs' Union

THE Clubs' Union is constituted by an amalgamation of the various student clubs and societies, both athletic and non-athletic, with the object of furthering their interests by mutual support. It also simplifies the collection of subscriptions; by the payment of an annual sum of 5 guineas a student obtains the privilege of membership of all the constituent institutions, whereas non-members are excluded from participating in the activities of any.

The affairs of the Clubs' Union are under the control of the Clubs' Union Council, consisting of

six Staff and six student representatives, elected annually. The constituent institutions are : Association Football Club, Athletic Club, Cricket Club, Debating Society, Dental Society, Fives Club, the *Guy's Hospital Gazette*, Golfing Society, Hockey Club, Ice Hockey Club, Lawn Tennis Club, Miniature Rifle Club, Pavy Gymnasium, Pupils' Physical Society, Rifle Association, Rowing Club, Rugby Football Club, Squash Racquets Club, Students' Club, Swimming Club and the Christian Union. The Guy's Physiological Society and the Guy's Hospital Musical Society are not affiliated at the present time. The activities of these clubs and societies are posted on the special notice-boards in the Colonnade.

Detailed reports on most of the above institutions are to be found in the following pages. The following notes may provide subsidiary information.

The 15-acre ground of the Clubs' Union is within a quarter of an hour of the Hospital ; not only are we very fortunate in having it so close, but also in having one of the best grounds in the London area. Frequent trains run from London Bridge Station to two stations close to the ground —Honor Oak Park and Crofton Park. Recent additions and improvements to the ground itself, the Pavilion and the Stand, have provided really excellent quarters for the Rugby and Association Football Clubs, and the Cricket, Hockey and Lawn Tennis Clubs. Another ground is provided for some of the junior Rugby Football teams at Motspur Park, which is easily reached from Waterloo Station.

The Rowing Club is affiliated to the Thames Rowing Club at Putney, where members are entitled to all the advantages of that Club. Members of the Golfing Society may play on one of many courses at specially reduced rates (see Golfing Notices). The Athletic Club supervises the activities of Guy's men belonging to the Inter-Hospital Hare and Hound Club.

By kind permission of the Matron a swimming bath in the Nurses' Home is available for students on alternate days. Squash and Fives are available on courts which are now to be demolished to make room for extensions to the Nurses' Home ; new courts will be erected before this occurs, with adjoining shower-baths and changing-rooms.

During the last season many teams and various individuals, representing many of the athletic clubs, distinguished themselves in their respective fields, not only in the Inter-Hospital but in more open competitions. Special mention may be made of the Athletic and Rowing Clubs. This state of affairs is very gratifying to all present and past Guy's men ; it is hoped, and there is every reason to expect, that the forthcoming season will be even more successful.

THE STUDENTS' CLUB

The Students' Club, perhaps the most important section of the Clubs' Union, is housed in the College, where there is now an excellent Catering Company, open only to members of the Clubs' Union. The Pavy Gymnasium is also housed here, where classes are given in Boxing, Fencing, etc. The Physical and Debating Societies hold their meetings in the College.

There is a big and important scheme afoot to inquire into the possibilities of building a new College, with better, bigger and brighter quarters for students. It is hoped that the plans will crystallise into something concrete in the near future. If anything is to materialise, present Guy's men must be made more conscious of the part they can play in controlling their own sports and pastimes.

Further information about the different clubs can be found in the Clubs' Union Year Book—obtainable at the Medical School Office, and new students are also advised to consult the notice boards in the Colonnade.

Considerable improvements have recently been effected at the ground at Honor Oak Park. There is a new Grand Stand, replacing that destroyed in 1936 by fire, and seating 600 people. There are three hard tennis courts open for general use. A considerable sum has been spent upon thoroughly redraining and returfing the ground, and it is now in excellent condition.

An excellent programme of home matches has been arranged by the Rugby Football Club—*vide* Fixture Cards—and it should be noted that members of the Clubs' Union are entitled to free admission to the ground on these, as on all, occasions, on production of their membership cards.

For many years it has been our hope to effect a reduction in the subscription fees, but when the many privileges are considered, the fee is only moderate.

Rugby Football Club

THIS season we can really say that our Rugger Club has entered on a new lease of life. Last season's results admittedly cannot have instilled very much confidence into our supporters and players, but we are prone to forget that the Hospital have one of the best and most strenuous fixture lists in the country, and several of the matches lost were due to very bad luck. We won against all the Services' teams, and the

displays against the Army and the Air Force were really superlative.

The main drawback of the side, however, has been the lack of fitness, and if this can be remedied we should have a very successful season. The players should make an extra effort to attain that state of fitness whereby a game of rugger can be enjoyed, and, judging by the attendances at the practices, the players are showing some keenness and a sense of duty to the Club.

Mr. R. C. S. Dick has been elected captain, but unfortunately will not be with us much longer. His departure will be a great loss to the side, and his displays for the Hospital and Scotland will be long remembered.

The 1st Fifteen will have to depend on most of last season's players. Van Steytler will be in harness again, and we have a new forward, Wiggins, down from Cambridge, who has truly impressed with his all-round ability and extreme fitness at the beginning of the season. Players would do well to follow his example in training so assiduously.

The 1st Fifteen had their opening game at Neath, but lost 15—8. The Welsh side were hard pressed throughout the game, and it was only during the last quarter-hour that they really dominated the game. Half-time score was 8—8. This was a very encouraging start indeed, especially as Neath are one of the strongest Welsh sides.

The strength of a club should always be judged by her junior sides, and in this respect we are very fortunate. Our "A" Fifteen is exceptionally strong, and last week beat the 1st Catford Bridge team—a truly outstanding performance. With men of the calibre of Breen-Turner, Camp, Birks and Gartrell in the "A" Fifteen, the strength of the team can readily be appreciated.

This season we are running seven sides and a Wednesday Fifteen, and all members are assured of a game. In the beginning of a season, some difficulty is always experienced in giving games to everyone, and members should appreciate this and not give up just because their names do not appear immediately.

We again have to thank Mr. J. H. Winston and Mr. George Winston for fixing up our excellent array of fixtures and for the interest and hard work they have put in to set the season going.

Mr. Hughes, our popular President, will be leaving the Hospital at the end of the year, and we can only wish him God-speed and hope that his familiar face will often be seen at Honor Oak Park, and that his interest in the Club will be maintained.

Finally, we wish to thank those hardy supporters who turn out every Saturday to cheer the side. We could, of course, do with many more, as a lot of the success of a team depends upon the support behind it.

A last word to the players. Let us go into the game this season a fit band of men. Instead of playing rugger to keep fit, as has always been the case, let us keep fit to play rugger. If we do this, the Hospital Cup is bound to return to its rightful place in the Borough.

L. BABROW,
Hon. Secretary.

Association Football Club

ONCE again the soccer season is upon us, and may our first thoughts turn to the newcomers, to whom we extend a very hearty welcome.

We hope those who are interested in soccer will join us, and help to make this year a truly successful one for our Club. Last season the experiment of running the new "Wednesday XI" proved of great success. In the first place it included many interesting fixtures, and again it brought several new players into view who had played in the 2nd Eleven.

At the recent meeting, B. M. Heap was appointed captain, and under his leadership we shall strive to retrieve the coveted Hospitals' Senior Cup. Incidentally, it is now over six years since this trophy was won by Guy's, and its return is long overdue.

As during last season, two regular elevens will be run in conjunction with the Wednesday Eleven.

An attractive fixture list has been arranged, with the object of providing keen and interesting games for all elevens.

On October 26th we shall look forward to our first visit to Reading University. On November 12th at Honor Oak Park we hope to field a strong side against Bart.'s, who last season so very kindly entertained us on the occasion of the opening of their new ground at Chislehurst.

If the Second Eleven keeps up the lively interest shown towards the end of last season, they should have little difficulty in keeping the Junior Cup for another year.

All those who are interested in soccer should add their names to the list in the Colonnade as soon as possible to ensure getting an early game.

Cheap tickets to Honor Oak Park may be obtained from the College Restaurant.

GEOFFREY M. PEARSON,
Hon. Secretary.

Hockey Club

FOR the benefit of newcomers it may be pointed out that there are four regular teams representing the Hospital. The 1st and 2nd Elevens play at Honor Oak Park, while the 3rd and 4th Elevens play at Motspur Park. Our fixture lists have again been considerably strengthened, and we hope to see many new members in our ranks this season, especially as we are losing some members of our last season's 1st Eleven. All those wishing to play hockey this season, whatever their standard, should place their names on the list posted in the Colonnade.

Last season was an extremely successful one for all teams, though we did not win either of the inter-hospitals tournaments. The 1st Eleven were the first hockey team to score 100 goals, a feat which the Club has never before accomplished. The final results were also excellent: Played, 38; won, 25; lost, 9; drawn, 4. Goals for, 140; against, 79.

The 2nd Eleven also scored over 100 goals, and finished with almost as good a record.

Last Easter we were invited to take part in the Folkestone Hockey Festival, where we played three games and had a very enjoyable time, which we hope to repeat next Easter.

Our President is again Dr. Poulton. The Club is deeply indebted to him and to our vice-presidents for their assistance and encouragement in the past.

New members requiring information can obtain it from any of the team secretaries.

Team secretaries for season 1938-39 :—

1st Eleven	T. C. Thorne.
2nd Eleven	G. C. Foster Smith.
3rd Eleven	J. K. Martin.
4th Eleven	H. Wheate.

Grounds.—1st and 2nd Elevens: Guy's Hospital Athletic Ground, Honor Oak Park. Trains from London Bridge (S.R.) to Honor Oak Park. 3rd and 4th Elevens: London University Athletic Ground, Motspur Park. Trains from Waterloo (S.R.) to Motspur Park. Cheap tickets are obtainable from the College Restaurant.

T. C. T.

Lawn Tennis Club

THE Lawn Tennis Club at Guy's has just completed a successful season. It is hoped that as many newcomers as possible who are interested in the game will, in due course, make themselves known to the Secretary. At the beginning of next season further notices will appear giving details of tournaments, matches, etc.

The courts are at Honor Oak Park. There are twelve grass courts and three hard. The dressing accommodation has been enlarged and hot showers are available. Balls can be purchased from the groundsman and balls that have been used in matches offered at a reduced price. All equipment can be obtained from W. H. James, Ltd., Aero House, Kirby Street, Hatton Garden, E.C.1, at reduced prices.

Squash Racquets Club

ALTHOUGH the facilities for playing Squash here are still quite disproportionate to its popularity, we are more optimistic about the future. It is rumoured that we may expect two new courts some time next year. Be that as it may, the standard of play is still incommensurate with the enthusiasm for the game. We feel the remedy lies in a more conscientious effort to make the "ladder" work. Although sufficient skill to enjoy the game is soon acquired, real improvement is only made when one chooses a more skilful opponent. The ladder, although treated with such disrespect, is designed to facilitate this end and provide us with the strongest possible team. Once more the appearance it presents at the end of the summer will be readjusted, and as there are one or two vacancies will anyone who wishes to be put on let me know.

Details of how it is meant to work will be posted in the Squash Court. The Club plays regular matches through the winter and competes in the Hospitals Cup. We are unfortunately still playing in the second division, but we feel that with all the material at hand we ought to be able to build a stronger side and get promotion again.

Rifle Association

THE Rifle Club has had less than the usual amount of success this year. It is obvious that this is, in part, due to the recent drop in the number of men shooting.

It is hoped that more men will come forward and help maintain the high standard of shooting displayed by the Hospital in former years. The facilities offered by the Club are numerous and good.

Open range shooting takes place from April to July at Bisley, where targets are available at 200, 500 and 600 yards on Wednesday afternoons. Inter-hospital and other matches are shot on Saturdays near the end of the season.

The Armitage Cup Competition in two stages, on alternate Saturdays in June. On the last

stage of this competition the United Hospitals Rifle Club holds its prize meeting, in which many valuable prizes are won.

The Hospital Rifle Club holds its own meeting, and various prizes may be won. An important event of the season is the staff meeting usually held one Sunday in June.

The United Hospitals' Challenge is competed for during the Imperial Meeting at Bisley in July.

The Club is affiliated to the London and Middlesex Rifle Club and we may use its targets and club house at all week-ends during the summer season.

Rifles are supplied by the Club and kept with an armourer at Bisley.

A special rate return fare is available from Waterloo to Brookwood on production of a voucher which may be obtained from the secretary. Electric trains every few minutes.

The Miniature Rifle Club, which functions during the winter months, uses the range at Mark Brown's Wharf, Potters Fields, Tooley Street, about ten minutes' walk from the Hospital. Shooting takes place during the evening on Fridays at 5 p.m., and the rifles are supplied by the Club.

We will welcome anyone on both the open and miniature ranges. Further details may be obtained from the secretary or from the captain.

T. L. R.

Sailing Club

ALL members of the Clubs' Union are eligible for membership to the Guy's Hospital Sailing Club. The Club is affiliated to the United Hospitals' Sailing Club, which has its headquarters at the barge *Harry*, Burnham-on-Crouch.

The United Hospitals Sailing Club runs a class of twelve 15-ft. lug-sail, clinker-built dinghies, and possesses a half-decked sloop, the *Oystercatcher*, and a 27-ft. Montague-rigged whaler.

The barge dispenses comfortable and homely fare at a very moderate price. The presiding genius, the steward, Mr. P. J. Coombe, has the happy knack of being able to produce a good square meal at practically any hour of the day or night. There are thirty bunks, a dining-room, a wash-house with a bath and a shower, and a drying-room.

For the novice, the Club provides an ideal opportunity to learn to handle a boat, for the man who has done some sailing it provides an excellent introduction into racing and cruising circles.

At the moment the United Hospitals Sailing Club offers a challenge to its members, old, new and prospective, for, although its membership increases, its activities in cruising and ocean racing thrive, and its annual ball is second to none, it is a lamentable fact that in the past few years the dinghy racing has been very poorly supported. So much so that in the coming year drastic alterations in the racing programme are being considered. It is sincerely to be hoped that Guy's men will do all they can to build up a sound racing tradition again.

The Clubs' Union pays the 10*s*. annual subscription of forty Guy's members to the United Hospitals Sailing Club, but there is an entrance fee of 5*s*. to the Guy's Hospital Sailing Club.

Any Guy's man wishing to join, or requiring any more information, should get into touch with the Hon. Secretary, D. G. Horan.

The Pavy Gymnasium

THE Pavy Gymnasium, built and maintained by the generosity of the late Dr. F. W. Pavy, is situated in the College and is open to members of the Clubs' Union at any time. It is equipped for boxing, fencing, gymnastics and jiu-jitsu, and is the headquarters of those clubs. There are showers and baths adjacent.

The respective clubs hold their meetings as follows :—

The Boxing Club has already started training for the season. A ring has been installed and the much-needed kit obtained. A list of fixtures is being arranged for both First and "A" teams, so that all members stand a chance of representing the Hospital.

Last season the Club was placed second in the Inter-Hospitals' Competition. It was handicapped, however, by a lack of heavyweights.

New members are urgently wanted and will be welcome whether they have had any previous experience or not.

Training takes place in the Gymnasium on Tuesdays and Thursdays at 4.30 p.m.

Further details may be obtained on application to the Hon. Secretary.

The Fencing Club meets twice weekly, on Wednesdays and Thursdays at 4.30 p.m., when two instructors are available. An Inter-Hospitals Competition takes place once yearly, and many matches are fought against other clubs. Several 2nd Team matches have been arranged in order to provide interest for those whose experience is limited. At the end of the season a Novices' Competition is held in foil for those of one year's

experience, or who have never represented the Hospital. The winner holds a very handsome cup for a year.

The Club is at present very short of members. Any member of the Clubs' Union, therefore, who is interested in fencing, whether he has fenced previously or not, will be cordially welcomed. For the present the Club is meeting on Thursdays only, in the Gym., and new members are asked to make themselves known then to the Secretary or Captain, who will give them any further information they may require.

The Jiu-Jitsu Club.—This holds its meetings on Mondays and Fridays at 5.15 p.m., when expert instruction is given by a professional.

The objects of the Club are twofold. First, to teach its members the art of jiu-jitsu, from the "breaking" of a fall to the more complicated "locks" and throws, and secondly, the application of the knowledge from a self-defence point of view. As a method of self-defence it is second to none.

All new members will be cordially welcomed, and are invited to attend in the Gym. at the above time.

Although there is no Gymnasium Club, there are various pieces of gymnastic apparatus available for those who wish to use them.

Further details of the above clubs may be found on the notice-boards in the Colonnade.

R. F. PARFITT,
Capt., Pavy Gym.

Golfing Society

President.—Mr. Bromley.
Captain.—B. C. M. Reed.
Hon. Secretary.—T. N. Praat.

THE Guy's Hospital Golfing Society has flourished for many years, and is now one of the most active societies in the Hospital.

Anyone who is interested in golf is welcomed, and there are matches and competitions in which good, bad and indifferent players can equally take part. A list is posted up on the Notice Board in the Colonnade, to which all golfers, new this year, are especially urged to add their names. It is most important that any new talent should be brought to light as soon as possible in view of the Inter-Hospitals' Tournament this term.

During the summer the Society plays matches, usually on Wednesday evenings, against a number of clubs, which this year included Sandy Lodge, Moor Park, Northwood, Royal Wimbledon, Beckenham, Sidcup, Addington Palace, Fulwell and Littlehampton, as well as matches against other societies and the annual Dental and Medical Staff matches.

In the autumn there is the Inter-Hospitals' Knock-out Tournament, mentioned above, which we have not won often enough, and there are also two United Hospitals golf meetings and our own President's Prize meeting during the year.

Our Society also can obtain reduced green fees at certain clubs, including Addington Palace, Sidcup, Beckenham, Sundridge Park and Sandy Lodge. For further information apply to me in the Dental School.

T. N. PRATT,
Hon. Secretary.

Rugby Fives Club

THIS October marks the beginning of the third season of the Rugby Fives Club. During this time the keenness and standard of play has steadily increased, so that we have acquired quite a reputation in the fives world.

At the end of last season several of our members left the Hospital, and we are looking to the newcomers to fill their places.

While we do not run two teams, we meet opponents of varying strengths during the course of the season. This ensures that anyone with a reasonable standard of play has a good chance of being called on.

Our President is again Dr. Gillespie. The Club is deeply indebted to him for his assistance in the past, for it was he who piloted us through our infancy and under him we look forward to yet another successful season. We are very fortunate in being able to call upon O. H. E. Bayles again to captain the Club.

In conclusion, will all newcomers wishing to play fives please communicate with either Bayles or myself.

J. MILLS STEPHENS,
Hon. Secretary.

The Debating Society

WHEREAS it is not possible at this date to give the exact details of the debates arranged for the coming two terms, we can announce that it has been agreed to hold meetings with the Nurses, in the Nurses' Home, with the Royal Free Hospital at Gray's Inn Road, and with St. Thomas's Hospital at Guy's.

The Secretary has found considerable apathy among the students whom he has asked either to lead or take part in debates, and would welcome the names of any keen on debating who are entering the Hospital this October.

B. D. JOHNSON,
Secretary.

The Pupils' Physical Society, 1938-39

Hon. President.—John Fawcett, Esq., M.D.

Hon. Vice-Presidents.—Sir William Hale-White, K.B.E., M.D.; Sir W. Arbuthnot Lane, Bart., C.B., M.S.; A. P. Beddard, Esq., M.D.; R. D. Gillespie, Esq., M.D.

Presidents.—T. H. Shire, Esq.; C. H. Edwards, Esq.; W. W. Gilford, Esq.; A. Shein, Esq.; W. E. Young, Esq.; A. A. Beazley, Esq.; J. R. Kilpatrick, Esq.; B. G. A. Lilwall, Esq.; F. J. R. Stoneham, Esq.; P. A. Gardiner, Esq.; M. Hutton, Esq.; W. Tillman, Esq.

Hon. Secretaries.—S. H. Wass, M.S.; J. R. Forbes, M.D.

IN bringing this Society to the notice of those Guy's men who are not acquainted with it I can do no better than reproduce verbatim the introductory paragraph by last year's secretary, which appeared in this journal:—

"The Pupils' Physical Society of Guy's Hospital is an old and honoured institution. With some such trite tag as this countless secretaries have introduced the Society to the notice of new students entering the wards of Guy's Hospital. Forty years ago, young men would present their papers to the Society with a similar remark, and add that they felt honoured to be allowed to read their papers before so learned a body. The odd thing is that what they said was true; honoured they were, and old and learned is the Society."

The Society offers a warm welcome to all members, new and old, at the commencement of this session. The Opening Address is to be given on October 13th by Professor J. A. Ryle, M.A., M.D., F.R.C.P., Regius Professor of Physic in the University of Cambridge. Professor Ryle will be remembered by many as Physician to the Hospital, and it is hoped that members will turn out in force to give him a real welcome upon his return to Guy's.

Every effort has been made to arrange an attractive programme for the year 1938-39. Last year was a very successful one for the Society, and the attendances at the Clinical Meetings were excellent, but at the reading of papers they left much to be desired. It is very disheartening to have a skeleton audience when a member has taken the trouble to present a really good paper to the Society, and it is hoped that members this year will make every effort to support their colleagues who are sufficiently keen to write papers.

The Society aims at presenting a series of meetings at which medicine is studied in its widest aspect—as an Art rather than a Science—and in an atmosphere, far removed from the examination room, where it can be enjoyed to the full. The meetings are traditionally of a free and easy nature, where the most junior student can say exactly what he likes without fear of jibe or criticism. It is our aim to foster this free expression of opinion, and we hope that all who have enjoyed the amenities of the Society in the past will continue to swell our meetings this year, and bring along their more junior colleagues whom we have not yet had the pleasure of meeting.

PROGRAMME

1938.

Thursday, Oct. 13th, 8.15 p.m.—Opening Address: "Prognosis," by Professor J. A. Ryle, M.A., M.D., F.R.C.P. Chairman, Dr. John Fawcett.

Thursday, Oct. 20th, 8 p.m.—Clinical Meeting. Chairman, T. H. Shire, Esq.

Thursday, Nov. 3rd, 8 p.m.—Clinical Meeting. Chairman, W. W. Gilford, Esq.

Thursday, Nov. 17th, 8 p.m.—Combined Meeting with St. Thomas's Medical Society at Guy's. Chairman, C. H. Edwards, Esq.

Thursday, Dec. 1st, 8 p.m.—Paper by P. Haden, Esq., "Patent Medicines." Chairman, A. Shein, Esq.

Thursday, Dec. 15th, 8 p.m.—Clinical Meeting. Chairman, A. A. Beazley, Esq.

1939.

Monday, Jan. 16th, 8.15 p.m.—Address: "The Doctor, the C.I.D., and the Witness Box," by Ex-Divisional Detective Inspector J. M. Harris. Chairman, Dr. C. K. Simpson.

Thursday, Jan. 26th, 8 p.m.—Clinical Meeting. Chairman, B. G. A. Lilwall, Esq.

Thursday, Feb. 9th, 5 p.m.—Combined Meeting with the Physiological Society. Papers by H. F. Lunn, Esq., and a member of the Physiological Society. Chairman, W. R. Spurrell, Esq., M.Sc., M.S.

Thursday, Feb. 23rd, 8 p.m.—Combined Meeting with St. Thomas's Medical Society at St. Thomas's. Chairman, W. E. Young, Esq.

Thursday, March 9th, 8 p.m.—Paper by J. S. Crone, Esq., "Obstructive Jaundice." Chairman, J. R. Kilpatrick, Esq.

Thursday, March 23rd, 8 p.m.—Clinical Meeting. Chairman, F. J. R. Stoneham, Esq.

Guy's Dental Society

THE Annual General Meeting of the Dental Society was held on Thursday, July 28th, when the following officers were elected for the year 1938-39 :—

President—
Prof. H. R. B. Fenn, L.D.S., D.D.S.

Vice-Presidents—
W. E. Herbert, L.R.C.P., M.R.C.S., L.D.S.
F. Bocquet-Bull, L.R.C.P., M.R.C.S., L.D.S.
A. Bulleid, L.R.C.P., M.R.C.S., L.D.S.
F. N. Doubleday, L.R.C.P., M.R.C.S., L.D.S.
K. Hooper, L.R.C.P., M.R.C.S., L.D.S.
R. E. Rix, L.R.C.P., M.R.C.S., L.D.S.
M. A. Rushton, M.A., M.B., B.Ch., L.D.S.
F. S. Warner, L.R.C.P., M.R.C.S., L.D.S.
Hon. Secretary.—K. R. Titford.
Hon. Treasurer.—R. K. Roberts.
Hon. Dance Secretary.—B. D. Clark.
Hon. Correspondent.—J. C. Ritchie.

Committee.—

Any Year Representative	K. R. D. Porter
4th Year Representative	J. W. Lee
3rd Year Representative	H. A. Hall
2nd Year Representative	A. A. Halamandres
1st Year Representative	C. P. Murch

The purpose of the Society is to enable all members of any year to meet fortnightly to listen to and discuss papers read by students. The meetings during the coming session will be held in the Anatomical Theatre on alternate Thursdays, commencing on Thursday, September 29th, with the Presidential Address.

The following papers, covering a very wide field, were read last year :—

1. " Industry and Dental Disease," by Mr. A. E. Parrott (awarded the Society's Prize for the best paper).
2. " The Development of the Face, Jaws, Teeth and Associated Structures," by Mr. K. P. Liddelow.
3. " The Child and the Dental Surgery," by Mr. R. D. Ogston.
4. " The Importance of Dental Sepsis," by Mr. Paul Borghys.
5. " Factors concerning Retention of Full Upper and Lower Dentures," by Mr. P. Fletcher.
6. " The Nervous System in Dental Disease," by Mr. D. J. Lyon.
7. " Dentistry of our Ancestors," by Mr. C. E. Sharland.
8. " Legal Matters," by Mr. R. G. Bird.
9. " A History of Dental Prosthesis," by Mr. R. D. Plowman.
10. " Immediate Dentures," by Mr. P. H. Staple (awarded Prof. Fenn's Special Prize).
11. " Endocrinology and Dentistry," by Mr. W. B. B. Southwell.

There were also two Casual Communications :—

Mr. A. G. Beaton : " A Bacteriological Investigation " (awarded Society's Second Prize).

Mr. A. E. Parrott : " Two Unusual Cases."

All papers read are open to discussion among the students present, qualified staff speaking only when invited to do so by the Chairman.

An annual prize of five guineas is awarded for the best paper, and one of one guinea for the best Casual Communication. In addition, our President has again been kind enough to offer a two-guinea prize for the best paper on a prosthetic subject.

This year it has been decided to arrange papers by four qualified men, covering as wide a field of dental knowledge as possible, and these should prove of special interest. In addition, it is hoped to hold a debate.

One of the most successful diversions of the Society is an Annual Dance, which lives up to a reputation of being the best " party " of the year ; we hope that it will continue to be so. The Dance will be held on December 1st, 1938. An Annual Dinner provides a most entertaining evening at a very reasonable price, and will be held on March 4th, 1939, at Grosvenor House, Park Lane.

All new students to the Dental School are cordially invited to the Society's meetings, in the Anatomical Theatre at 5.15 p.m., preceded by free tea in the Phantom Head Room, served from 4.30 p.m. Notices of meetings will be posted up in a number of places in the Hospital.

The Christian Union

THE first mention of a Christian Union at Guy's occurs in 1849, when Dr. Habershon, of Guy's, and Dr. Gladstone, of St. Thomas's, which was then on the other side of St. Thomas's Street, started a " Bible Reading " for their students.

In 1853 the name of Dr. Golding-Bird, then Assistant Physician to Guy's, became closely associated with the Union, and he took an active organising part in its proceedings.

Since those days the Union has continued, with one or two small intervals, and has undergone several changes in its organisation, made necessary by varying conditions, until it has reached its present form. It now exists as a means of uniting

those men in the Hospital who have taken the Lord Jesus Christ as their personal Saviour and are determined to live their lives to His glory, and to spread this knowledge of His saving grace.

It forms a part of the London Inter-Faculty Christian Union, which is one of those incorporated in the Inter-University Fellowship of Evangelical Unions.

The Union meets in the chapel for prayer at 1 p.m. on Tuesdays and at 12.40 p.m. on Fridays, by kind permission of the Chaplain.

Several meetings have been arranged for this term. The speakers include Mr. R. A. Bosshardt, who has spent some years in China, where he has had thrilling experiences in the hands of brigands; and Mr. Hugh Redwood, well-known as a member of the staff of one of our London newspapers.

Full details of these and all other meetings will be found posted on one of the Notice Boards in the Colonnade.

H. W. W.

The Physiological Society

THE Physiological Society was founded in 1901 by the late Professor Pembrey; since then, meetings have been held without a break, even during the war years. Only one other hospital shares with us the distinction of possessing a Physiological Society. Now, instead of Prof. Pembrey, Mr. Spurrell is President, and he plays a very great part in the life of the Society.

About twelve meetings are held during the winter, at 4.30 p.m. on Thursdays. They are preceded by tea at 4.15 p.m.

The papers are read by students, after which there is a discussion centering on the paper.

The Society is not part of the Clubs' Union, and indeed has always prided itself on its autonomous constitution; consequently there is an annual subscription of 3*s.* 6*d.*, which can be amply redeemed by having tea before the meetings.

The object of the Society is to stimulate the student's interest in Physiology and to get them to air their opinions in public. The Society does not in any way cater purely for swots, the subjects chosen by members being most interesting and instructive. This is borne out by the fact that last year the membership was over one hundred, and that there were only one or two students in the Physiology Department who failed to join, which says a lot for its popularity.

The Pembrey Prize is awarded annually for the paper which is adjudged the best read before the Society during the session.

All those who wish to join should apply to the Secretary, whose name appears on the Society's notices in the Colonnade or Medical School.

The following is a list of a few of the subjects on which papers will be read during the coming season: "Coagulation of the Blood," "Animal Behaviour," "Some Aspects of our Modern Conception of Diabetes Mellitus," "Blood Grouping," "Landmarks in the History of Physiology," "Drowning."

Guy's Hospital Musical and Operatic Society

THE Guy's Hospital Musical and Operatic Society, one of the younger of the Hospital societies, was founded in February, 1903, by the union of the Nurses' Choral Society with the Students' Glee Club. From its beginning in 1903 until the war the Society gave one or sometimes two concerts a year, which were always successful, both socially and financially. No concerts were held during the war, and it was not until the autumn of 1919 that the Society again started its activities; once again it embarked on a series of concerts until, in 1924, it produced its first Gilbert and Sullivan opera. The series was completed in 1936 by the production of "Princess Ida" at the Fortune Theatre.

During the past year the Society has enjoyed the great pleasure of several Musical Evenings held in the Nurses' Home, by the kindness of the Matron; these informal gatherings have done much towards the closer co-operation between members.

The Society is at present preparing for its next concert, which is to take place near the end of November, when the concert version of Edward German's "Merrie England" is to be performed by the Choir, Orchestra and Soloists. To make these occasions a real success it is not sufficient merely to have a large number of performers—there must be a large audience of people keenly interested in music. The Society is, therefore, particularly anxious to have the co-operation of newcomers who are interested in music, orchestral or vocal, and a warm welcome will be awaiting freshmen. A special appeal is made

to freshmen because it has been noticed in the past that on first joining the Hospital they have seemed rather reluctant to come forward.

The Wills Librarian has kindly undertaken to introduce any newcomers to the secretaries. There is a notice board in the Colonnade, where all information concerning the Society is posted.

Since the foundation of the Society the secretaries have always been unqualified men, the treasurer has always been a really responsible person, usually a member of the Hospital Staff, and Mr. Mollison has ably filled this post for many years. We have also been fortunate in that Dr. Fawcett has been President since 1923, and we understand it is the only society in the Hospital in which he now takes an active part.

Our Chairman, the Matron, has been associated with the Society for years, and has done much towards its success by presiding over the Executive Committee.

Membership is open to anybody in the Hospital. We are not affiliated to the Clubs' Union, and the Society is open to receive all members of the Medical, Dental, Nursing, Massage and Administrative Staff.

The Secretaries will be in Classroom I at 5 p.m. on Thursday, October 13th, to meet all freshers who are interested in the Society.

Guy's Hospital Chapel

THE Chapel will be found under the clock in the Front Court. Inside it is square in shape with galleries round three sides, and has often been described as a "drawing-room chapel of the Georgian period."

The stained glass windows commemorate William Hunt, the founder of the Medical Block, and others are recalled by brasses in various parts of the Chapel, while the mosaics and the oak panels are a memorial to those who have died in the medical service of the Hospital since 1867.

Facing the altar at the back of the Chapel is a monument to our founder, Thomas Guy, who is seen in the Court dress of the period tending a suffering man, with a replica of the facade of the Hospital in the background.

Through the little vestry on the right-hand side of the altar there is a small Chapel, where the Sacrament is reserved for the Communion of the sick. This quiet place is always open for private prayer.

The most important improvement that has been carried out in recent years is the restoration of the Crypt immediately beneath the Chapel, which for years had been a very dark and neglected place, but, owing to the generosity of the Sheppard Trust, in 1932 it was possible to make the Crypt a more worthy place to contain the Founder's tomb, and those of other benefactors. Thus a very beautiful and extensive Crypt has been made, and it is interesting to note that the work of restoration has been carried out with bricks from some old houses in the City, which were of the same period and were being pulled down at the time.

Among other tombs in the Crypt are those of William Hunt, Sir Astley Cooper and Charles Joye, the first Treasurer of the Hospital. The Crypt may be visited at any time, and the key may be obtained at the Front Lodge.

The Chapel and its services are open to all members of the Hospital and Schools. Holy Communion is celebrated at 7 a.m. and 8.45 a.m. on Sundays, and on week-days at 7 a.m. There is a morning service and address on Sundays at 11 a.m. A complete list of services will be found in the Chapel, and the Chaplain is always pleased to supply further information.

The University of London Officers Training Corps

THE University of London O.T.C. comprises six units — Artillery, Artillery Survey, Engineer, Infantry, Army Service Corps and Medical, and we at Guy's are responsible for one of the eight companies of the Medical unit.

Our object is to train medical students for commissioned rank as medical officers in the Territorial Army or the Supplementary Reserve, in order to maintain an adequate reserve to meet any national emergency, but enrolment in the O.T.C. involves no liability to military service of any kind.

The training in the Medical unit consists of lectures, demonstrations and tactical exercises in such subjects as the treatment and evacuation of sick and wounded in time of war, the maintenance of the health of the fighting forces, and the measures for combating chemical warfare. It should be emphasized that we do only the barest minimum of "barrack-square" drill, with which the name "O.T.C." is usually associated in the minds of

those who knew that organisation at school; on the contrary, we cover a considerable amount of ground which is essential in a general medical training, and study subjects, such as anti-gas measures, which are topics of general interest at the moment.

The greater part of our training is done at annual camp, held during the last two weeks of July, at which attendance by all officer-cadets for at least ten days is essential. Good sites are always found for these camps, the last three having been at Eastbourne, Swanage and Folkestone, and there is always ample opportunity for bathing and other recreations.

In addition to annual camp, weekly informal parades in mufti are held for the Guy's Company at 5 p.m. on Tuesdays during term-time in the Medical School, and there is a voluntary camp over the Whitsun week-end for any members of the Medical unit who wish to attend at our own Standing Camp at Princes Risborough, Bucks.

Membership is open to British subjects of pure European descent; while we are intended primarily to train medical students, a limited number of dental students may be admitted. Uniform is provided free, and the cost of joining is confined to the purchase of boots, shirts, collars, and ties, all of which can be obtained through the O.T.C. at very reasonable prices. Officer-cadets enrol in the first instance for two years, and can, if they wish, continue their service further by annual re-engagements.

There has been a very large influx of recruits this year, and all vacancies in the Medical Unit and in the Guy's Company were filled within a few days of the opening of the present term. We have at the moment a short waiting list, and anyone who wishes to enrol should do so without delay in order to get his name as far up the waiting list as possible.

Further information can be obtained at our next weekly parade, on Tuesday at 5 p.m. in the new Lecture Theatre on the lower ground floor of the new Medical School building.

Reviews

Story of a Great Hospital—The Royal Infirmary of Edinburgh, 1729-1929. By A. LOGAN TURNER, M.D., LL.D., Hon. F.R.C.P.(Edin.). Published by Messrs. Oliver & Boyd, Edinburgh. Pp. xvi and 406, with Photogravure Frontispiece, 34 Illustrations and 4 Views. *Price* 10*s*.

ANYONE who has been influenced by the great school of medicine in Edinburgh—and what surgeon of to-day, as well as many a physician, has not?—will read this work with interest. If he has also been honoured with the friendship of Dr. Logan Turner, he will do so the more, and with the voice of his master ringing—or should we say sounding?—in his ears.

The story of the Royal Infirmary of Edinburgh is of especial interest to Guy's because the two institutions were founded and built almost contemporaneously; and the pictured building of 1738 shows a striking resemblance to our own courtyard, a resemblance that will be felt as well as recognised by any who remember it before the recesses on either side of the Front Entrance were filled in by the extension of the Front Surgery and Offices and by the erection of the balconies to the front surgical wards. Thomas Guy's architect was Mr. Stear, that of the Royal Infirmary was William Adam, of Maryburgh in Fife, the father of Robert and James Adam, the brothers who did so much to influence the appearance of London in the eighteenth century. It would be an interesting piece of historical research to see whether Adam was influenced by Stear or the latter by any of the Adams. If there was no personal contact, the resemblance of these two buildings indicates a general move in one direction in the art of the architect which is the more remarkable when we remember how far London was from Edinburgh in those days.

The story of a hospital must include that of the rise of the institution as an administrative unit, as well as some account of the men who served it. When that hospital has also been one from which the teaching of these men has gone out into all the world, its story must also include the story of the school of medicine within its walls. Dr. Logan Turner therefore passes from the foundation of the school of medicine to the foundation of the Infirmary of Edinburgh, and he follows these two themes throughout two centuries.

The first striking personality that we meet is Dr. John Rutherford, the maternal grandfather of Sir Walter Scott, who in 1748 began to lecture in clinical medicine; that is to say, he gave his lectures in the presence of the patient, as distinct from lectures given in the theatre, in which the teacher went systematically through the whole subject. The whole of our clinical teaching in Great Britain may be traced to Dr. Rutherford. He gave his systematic lectures in Latin, "a language in which he was highly proficient," being appointed the first Professor of Medicine of the University of Edinburgh in 1720. When he began

to lecture in clinical medicine in 1748, he imparted his instruction in his native tongue.

From this innovation of John Rutherford has evolved all the teaching by ward rounds, not only in London and the provincial universities in this country, but also in the United States of America and in Canada. The distinction between systematic and clinical medicine has disappeared with us. The nearest approach to the former is seen in our " clinical " lectures, though there is nothing systematic in them. The distinction between the two remained in Edinburgh throughout the nineteenth century. Syme returned there because when he came down to University College he found he was expected to give the systematic lectures as well as to act as Professor of Clinical Surgery. In the University of Edinburgh there are still Chairs of Medicine and of Clinical Medicine, of Surgery and of Clinical Surgery. Perhaps there is not so much stress laid upon the systematic lectures as in former years, but then Edinburgh has in this century developed the teaching by ward rounds of which she was the founder to the extent that we in London, and especially at Guy's, have long claimed as our own. Who can say that there is no disadvantage in a medical education where the only guarantee that a student has covered the whole of his subject is absorption in his textbooks ?

The modern generation has no mental picture of a little bottle in its mother's medicine cupboard labelled " Dr. Gregory's Stomachic Powder," nor any memories of wondering whether a slight excess at a recent party was to result in a dose of this or of the less bitter liquorice powder. James Gregory, as his picture by Raeburn in the possession of the Royal Medical Society shows, was more than the inventor of a powder. He was also a great personality and a distinguished exponent of the art of medicine before the days of Hahneman.

We must turn from medicine to surgery. Of all the great names associated with this school that of Sir Charles Bell is perhaps the greatest. He returned there at an age when we are to-day compelled to give up teaching. His influence in London is to be seen to-day in the virile school attached to the Middlesex Hospital, but he wrote to his brother, " London is a place to live in, not to die in." The greatness of Bell needs discovering, that of Syme, of Lister, and of Simpson is known to all. Syme dominated the surgery of Edinburgh, just as Wilks dominated the medicine of Guy's in the middle of the last century, and, like Wilks, left behind him a number of men who followed in his teaching, one of whom, Thomas Annandale, succeeded to the Chair of Clinical Surgery which he held until his death in 1907, so that there are men still in the active practice of their profession who studied under him.

The names of Simpson and of Lister remind us that the great School of Edinburgh was intimately associated with the two great advances of surgery in the nineteenth century, though it initiated neither. Simpson introduced chloroform as a substitute for ether ; he did not initiate the idea of anæsthesia. Lister returned to Edinburgh on Syme's death, three years after his famous article in the *Lancet* for 1867. The fact that the Edinburgh School was early in the field in both these revolutions has probably had an influence that is not expended to-day. But it is important to remember that both Simpson and Lister were greater than their work. They made their discoveries as a result of their intense sympathy with human suffering. They did not relieve pain in the human race as a result of something that they happened to discover.

Of the various stories on administration and on the evolution of teaching that Dr. Logan Turner tells none is more interesting than that of the struggle of women to gain access to the medical profession and to have the opportunity of acquiring the clinical experience which is essential for this. To one who has had the pleasure of working with more than one young woman educated in the University of Edinburgh it cannot seem anything but a disgrace that practically the only homes of education of university standard in the world to-day in which men and women are not allowed to work side by side are some half a dozen medical schools of the University of London.

T. B. L.

A Short Practice of Surgery. By HAMILTON BAILEY and R. J. MCNEILL LOVE. Published by Messrs. Lewis, Ltd., London. Fourth Edition. *Price* 28*s*.

THE publication of the fourth edition of " Bailey & Love," including reprints of two editions, within the space of six years calls for some comment. Why is this book so popular ? I submit there are two reasons. In the first place, as its title suggests, it is a short book, and this, on the face of things, appears to satisfy the present-day student's ambition to do as little hard work as possible. Secondly, the appearance of the book is undoubtedly good. It is well bound, the type is clear, and the many illustrations are, for the most part, good ; in fact, everything about it is good except the text, which is not worthy of the excellent paper upon which it is printed. It is pathetic that a book should depend for its popularity upon the virtues of the publishers, whilst the sole effort of the authors in that direction

is to include an abundance of illustrations to "lighten and shorten the text."

Let us examine the first so-called asset of this book—its brevity. Why must the student, even supposing a natural distaste for work in general and surgery in particular, have a short book? The longer works are so much easier to digest, since adequate space is allotted to the enunciation of basic principles, to the substantiation of opinions, to the discussion of controversial points and to the explanation of established facts. Surgery is thus presented in a manner easy of intelligent assimilation, and the student learns his subject with the minimum of effort. The short book, with its bald statements, requires the maximum of effort as its every word must be memorised parrot-fashion, and even then the reader has not *learnt* his subject and he cannot face his examiners with confidence. The opinion is frequently expressed that general clinical teaching should provide the student with his knowledge of principles, and that a short, condensed book is adequate to provide him with the necessary facts of his subject for examination purposes. But surely this argument is false, for even the best student needs *reminding* of his principles when he is making his effort to apply them; and if opinions are expressed which are contrary to those he has been taught, he surely has a right to expect some assistance in sifting the grain from the chaff.

The protagonists of the short book also argue that it is useful for revision of a subject in the immediate pre-examination period. This may be true of a good short book, but "Bailey & Love" is not a good one. Apart from the final chapter on "Infections of the Hand," there is not a single chapter in the book which is consistently good. The individual subjects are presented with a degree of dogmatism quite unnecessary and often unjustified, and many of the opinions expressed are, from the student's point of view at any rate, positively dangerous. The applied anatomy and embryology is scant and totally inadequate, and whilst the authors' excursions into the charted waters of pathology are chaotic, when they sail the uncharted waters the wreck is complete.

To turn to the text in detail. In the preface it is stated that ". . . advanced surgery, and rare conditions are relegated to small type." With this in mind it is indeed surprising to find that Crohn's disease and Von Jaksch's anæmia each occupy nearly a page of large type, whilst pyloric stenosis, pelvic abscess, subphrenic abscess and the treatment of carcinoma of the œsophagus suffer the indignity of relegation. Apart from adverse criticism of fact, many topics are dealt with far too briefly; for example, burns and scalds, rodent ulcer, pyloric stenosis, carcinoma of the colon, paralytic ileus and head injuries. Many instances of failings in the text could be cited, but in this short space we must content ourselves with but a few.

The pathology in the chapter on tumours in general is rivalled for inaccuracy and heresy only by that in the sections on diseases and tumours of bone. Thyroid diseases are treated particularly badly; the classification of goitres leaves much to be desired, and there is no mention of the clinical features of malignant disease. The description of the types of toxic goitre is confused, and it is surprising to note that the so-called adenoparenchymatous goitre is "relatively uncommon" and (only?) "sometimes complicated by thyrotoxicosis."

The entire subject of the ætiology of chronic gastric ulcer is dismissed in the sentence, "The cause is usually regarded as an infective focus, possibly associated with thrombosis in the gastric wall, the devitalised area being digested by the gastric juice"; whilst the ætiology of duodenal ulcer and carcinoma of the stomach receive equally meagre consideration.

The section on intestinal obstruction is poor. There is no good classification of the causes of this condition; the differential diagnosis of the individual causes is inadequate; the pathology is bad, and there is the usual textbook error of describing volvulus as a hyperacute form of this disease. A good beginning to the chapter on appendicitis is ruined by a four-page account of that pernicious form of treatment advocated by Ochsner and Sherren.

There is no account of the anatomy of the rectum and anal canal, which is essential to the proper understanding of rectal disease. Damage to the *external* sphincter is given first place in the causes of rectal incontinence, without mention of the importance of the levator ani; and in Fig. 381, depicting the seton operation for fistula, the seton is suitably coloured red—it would indeed be dangerous to use it in the manner depicted! In the further account of the seton treatment of fistula the use of proctocaine is recommended to relieve pain; pain would be a blessing compared with the dire results likely to follow such a proctological crime! The lymphatic spread of carcinoma of the rectum is illustrated after the teaching of Miles, which is against current opinion, and the section on treatment of this disease gives many erroneous ideas.

The treatment of inguinal hernia is extremely vague in principle, and if to distinguish between a direct and indirect hernia "the only absolute method of diagnosis is to feel the pulsating deep

epigastric artery on the lateral side of the neck of the sac," it would be interesting to know how often the authors can make a correct pre-operative diagnosis.

The general account of the investigation of urinary disease could be greatly clarified, and there is no mention of the clinical differentiation of the various causes of hæmaturia. The discussion on tuberculosis of the genito-urinary tract is extremely poor, and in the section on tuberculous epididymitis there is no mention of possible associated renal disease. In the treatment of the enlarged prostate much is said about prostatectomy and practically nothing about the important pre- and post-operative periods. The pathology of urethral stricture is bad, and the reader is left in the air as to when the various methods for its treatment should be used. Inflammatory diseases of the testis and epididymis are not clearly expounded, and of the undescended testis, surely no one believes that " only very rarely does a testis reach the scrotum by its own initiative if it has failed to do so by the end of the first year."

Fractures are done badly, especially those of the spine, neck and shaft of humerus, neck of femur, tibia and fibula, and fractures about the ankle joint—in fact, almost all the important fractures ! In talking of fractures of the patella, excision of the bone is given great prominence, and surely, in an undergraduate book, it is extremely dangerous to say, " We . . . believe it will entirely supersede fixation of the fragments." It is also unusual to *excise* a dislocated semilunar if manipulation fails to reduce it.

There is little good to be said for the sections on knee-joint injuries, infective arthritis, chronic non-specific arthritis and joint tuberculosis. Many orthopædic hearts would be broken to read that, in some cases of joint tuberculosis, operation is recommended *at the outset*, " in order to shorten the time required for treatment," and the chapter on Deformities would not provide the potion to heal those same hearts.

The student would be well advised to avoid this book. Like the devil incarnate, its outward appearance is good, but it must inevitably lead to disaster. It is impossible for the average man to *learn* surgery from it ; but in spite of it, as events have proved, the good man may be fortunate enough to satisfy his examiners. S. H. W.

On the Danger List. By Dr. SANDOR PUDER. Published by Messrs. Constable, London. *Price* 7*s.* 6*d.*

THIS book purports to be the case history of a young doctor who had an attack of acute appendicitis, treated conservatively in the first place, with the most disastrous consequences. The author is apparently a sensitive, highly-strung and introspective man, and his every feeling during his protracted illness is recorded in a graphic manner.

The object of this, according to the preface, is that the young doctor " may be brought into closer touch with the psychic life of his patients," but throughout the book all medical terms are carefully defined, and it is obviously hoped that its circulation will not be restricted to the medical profession. In the hands of the lay public this book can do nothing but harm. In the eyes of the profession the gross mismanagement of the case throughout can excite nothing but derision. There seems little cause, therefore, for its publication.

Keats as Doctor and Patient. By SIR WILLIAM HALE-WHITE, K.B.E. Published by Humphrey Milford, Oxford University Press. *Price* 5*s.*

SIR WILLIAM HALE-WHITE has written a book which is not only of very great value to all who are interested in the poetry and life of Keats, but to everyone who is connected with Guy's. John Keats was twenty-five years old when he died ; for five years he studied medicine. After serving his apprenticeship, which was usual at the time, he attended as a student of Guy's Hospital until he became a Licentiate of the Society of Apothecaries in 1816. Although there are surprisingly few lines in the poems which show the influence of a study of medicine, John Keats was both a doctor and a patient, for he died of phthisis. In tracing his life at the Medical School and subsequently analysing the various phases of ill-health through which the poet passed during his long terminal illness, Sir William Hale-White has helped to provide a more accurate background to Keats than we knew before. Perhaps the deepest impression received on reading this volume is that John Keats should have accomplished so much in so little time.

The first part of the book, concerned with the details of apprenticeship to a physician and the life of a student at Guy's in the second decade of the last century, is of particular interest to us. Details of the classes attended and the duties of the dressers make fascinating reading, while hardly less interesting is the brief account of the streets round Guy's during the lifetime of Keats. After qualifying, Keats never practised, and the second part of the book deals with the short period, less than three years, which elapsed between his leaving Guy's and his death. In particular, the details of his illness are described, and an account of the treatment which he received.

Finally, Sir William Hale-White has added those quotations from Keats' works which indicate his medical training.

It is pleasant to think that the first line of "Endymion" was written in St. Thomas's Street.

This book is excellently produced and contains four plates, one of which shows the Front Quadrangle at Guy's in 1818 and another, St. Thomas's Street at the present time. A. B. C.

Biochemistry for Medical Students. By W. V. THORPE, M.A., Ph.D. Published by Messrs. J. & A. Churchill, Ltd. *Price* 12*s.* 6*d.*

TO-DAY when such complex chemical compounds as sex hormones have been synthesised and, indeed, lengthy formulæ become commonplace on the lips of surgeons, it behoves the medical student to learn a little more of biochemistry than simple tests for albumin and acetone. This book by Dr. Thorpe, of Birmingham University, is most excellently planned with a wealth of material, much of which is as yet only available in the journals of scientific and medical associations. He wisely starts with a concise account of the physical chemistry which is so essential a part of biochemical processes, and he makes a difficult subject understandable. There are a few mathematical formulæ which may be neglected by those without the mathematics, but in compensation such subjects as adsorption, colloidal state, hydrotropy and heavy water are made crystal clear. The Dorman Equilibrium is rightly included in spite of its complexity.

The chemistry of fats, lipides, sterols, sugars, proteins and other biologically important materials follows with concise accounts of their physiological relationship. He allows his ardour for pure chemistry to overcome him here; the structure of sugars hardly comes within the curriculum of Conjoint or M.B.

The inclusion of a third section of nearly eighty pages on energy requirements, but particularly on Dietetics, is an excellent innovation. Dietetics is usually scurvily treated in the textbooks which normally come within the ambit of medical students, and, although a subject of the first magnitude in practical medicine, it is woefully neglected, while endless pages are devoted to incurable conditions. This book goes far to restore the balance. It is a small mine of information.

There is sufficient material in this books for both Primary Fellowship and B.Sc. Physiology, and this is perhaps the only criticism that a pure qualifying-examination wallah might make.

T. H. S.

Fevers for Nurses. By GERALD BREEN, M.D. Published by Messrs. F. & S. Livingstone, Ltd., Edinburgh. *Price* 5*s.*

THIS book is written to cover the syllabus laid down by the General Nursing Council for the Certificate of Fever Nursing. The material is drawn from lectures delivered to nurses of L.C.C. infectious hospitals.

It is most clearly written and supplies all the necessary details for the nurse's requirements. Mr. Breen lays special stress on the fact that a good working knowledge and principles of treatment are the essentials for a fever nurse rather than a great knowledge of the technicalities of research.

Apart from dealing generally with the rudiments of the nursing of infectious diseases, each infectious disease is fully described and illustrated, systematically, its cause, incubation period, mode of spread, etc. A list of examination questions is also included, and very good advice on the answering of these questions.

This book, as well as being instructive, is most readable, and one feels will be an excellent addition as a textbook for fever nurses and as a reference book for nurses doing their general training.

W. D.

Surgeon Extraordinary. By LOYAL DAVIS. Published by George G. Harrap, London. *Price* 8*s.* 6*d.*

SO many of the tributes which are paid to past masters of Medicine and Surgery read with a depressing dullness and a lack of fire, and it is therefore the more resounding triumph for Loyal Davis, surgeon himself, to have given us this vital biography of Murphy—famous to surgery for an irrepressible if rather mercenary genius, and to medicine as a whole for his intestinal "button." There is something in Loyal Davis's style which is strikingly reminiscent of the new Cronin, Cronin writing not of the toils of the poor and striving workless, but of the rather buccaneering triumphs of the consulting specialist, and Cronin himself, in contributing a foreword to the book, goes so far as to say he could have classed it, if in novel form, with such memorable portraits as Arrowsmith or Elmer Gantry.

There can no denying that Davis has a life story, in Murphy's meteoric rise from boy-of-all-work in a drug store to millionaire surgeon President of the American Medical Association, which would provide an attractive basis for any novel; the fact remains that the finished biography is a brilliant feat of characterisation written with a hand that has never faltered in its portrayal of the troubled rise to fame of this young surgeon. Murphy was such an individualist, and at times so irritably

Irish in his perversity and sentiment that any career would have provided the troubled steps he found himself taking in surgery; unorthodox surgery has always invited biting criticism, and when it is successful, as Murphy's was, unfair and unkind criticism. Loyal Davis draws the sensitive Murphy's worry over this and his recourse to his ambitious wife's soothing but persevering flattery with fine taste, and there results a living biography, flashing with all the colours of the brilliant surgeon's career to recognition and fame. It is somehow so characteristic of Murphy that within four years of his election by the American Medical Association as their President he stood before them on a charge of unethical conduct, and to our mind quite rightly; his sense of opportunism was too strong, his desire for publicity too thinly concealed to enable him to practise surgery without endless frictions with his contemporaries; that we feel sorry for him in these is the result of Loyal Davis's appreciation of Murphy's own character. The book makes dramatic reading of the first water for any medical man wherever lie his interests; it is the kind of book one goes on reading far into the night, and we recommend it without reservation as excellent fare.

Hygiene—A Manual of Public Health. By J. R. CURRIE, M.A. (Oxon.), M.D. (Glas.), D.P.H. (Birm.), F.R.C.P. (Edin.). Published by Messrs. E. & S. Livingstone, Edinburgh, 1938. Pp. 324, 34 Illustrations. *Price* 15*s.*

THE progress of Public Health and the increased demands of the qualifying examinations indicate the need of medical students for a wider knowledge of the subject; Dr. Currie has chosen a most opportune moment to publish this interesting and comprehensive volume on the present position of State Medicine. The work is intended for students, and not for qualified men who are taking up Public Health as a career, so that details of administration and law are very properly omitted.

Wherever applicable, a brief and adequate review of the history of the subject is given which stimulates the reader's interest and makes the present position more clear. Commencing with a short chapter on Genetics and Inheritance, Dr. Currie continues by outlining the services now available to the growing child and adult in chronological order—a novel and satisfactory innovation. Then come sections on Food, Environmental Hygiene, Infectious and International Hygiene. Finally, the inclusion of a summary of the medical aspect of Air Raid Precautions makes available information too long neglected by the majority of us.

The work is well written and well presented; the whole field of Public Health is covered. Reference to important facts are made, perhaps too often, by the inclusion of an adjective whereas the very importance would seem to justify a sentence; in so comprehensive a work of this size this is a difficulty hard to avoid, but the degree of concentration of the text does demand the closest attention of the reader.

Dr. Currie's opinion that pasteurisation of milk is preventive of tuberculosis (p. 268), while widely held, will be criticised by some authorities; that satisfactory treatment of the milk eliminates the bacillus none will question, but there are many supporters of the value of the sub-clinical infection theory. The remuneration of insurance practitioners (p. 83) " at the rate of 9*s.* per annum for each person " would be more correctly stated by saying that it was on the *basis* of 9*s.* per person.

With the account of local authorities' duties under the Housing Acts, some brief mention of " The Power of Entry " would explain how the necessary information is obtained. The fact that a vaccinated child is under ten (p. 239) does not justify the statement that chicken-pox is more likely than smallpox in a doubtful case; if a confident diagnosis cannot be made, the more serious fever should be suspected until a competent authority has seen the case or until suitable measures have been instituted. On account of the risks arising from the great increase in air travel, the present inadequate vaccination in this country could, with value, have been commented upon on page 302. Intravenous anti-toxin for serious cases of diphtheria is sufficiently practised to merit inclusion in the treatment mentioned on page 240.

Nevertheless, it is indeed rare to find, in a first edition, so few points for criticism. With the ever-growing Public Health services and the increasing need of every medical man to know of these services, this is a book which is at the same time interesting, necessary and adequate. It seems probable that the work will be widely accepted as a standard textbook on hygiene for medical students and practitioners. Excluding unnecessary detail, the volume makes available just that information which is essential for the proper co-operation of practitioners with Public Health Authorities.

Medicine for Nurses. By C. B. PERRY, M.D., F.R.C.P. Published by Messrs. E. & S. Livingstone. *Price* 5*s.*

THIS is an excellent book for first and second year nurses, as it gives a brief outline of signs, symptoms and treatment of medical diseases. It is up to date, and the

chapters on diabetes and diseases of the respiratory tract are particularly good. Special attention is paid to asthma and skin diseases.

Although this book is not full enough for a final-year nurse, it should be a most useful reference book for a senior probationer, as general principles are stressed without describing individual diseases in too great detail.

A. L. P.

Illustrations of Anatomy for Nurses. By E. B. JAMIESON, M.D. Published by Messrs. E. & S. Livingstone. *Price* 7*s.* 6*d.*

THIS is a very interesting and varied selection of pictures of anatomy. They have just enough of the diagrammatic element in them to make the details clear, although the general effect is realistic. Most of them are coloured and are well produced.

Sister tutors would find them invaluable for use with an epidiascope. The plates are bound in the loose-leaf style, which makes them very convenient.

F. T.

Ophthalmic Nursing. By D. E. GRAND. Published by Messrs. E. & S. Livingstone. *Price* 4*s.*

THIS should prove a useful handbook to nurses working in ophthalmic departments or to help nurses working in a general hospital to obtain a knowledge of this work. In some respects it is inadequate as a general textbook on ophthalmic nursing. An account of the theatre work and special work in an out-patient department would have been appreciated.

Section II contains an excellent account of the pre-operative and post-operative care of a patient with a cataract. The illustrations are very helpful. It appears to be rather confusing to label Chapter I of Section II "Ophthalmic Conditions." The first two items dealt with under this heading are "Accessory Sinuses of the Nose" and "Anæsthetic."

The writer feels that the nursing details could be elaborated with advantage, and with very little addition to the bulk. The paper is thick and considerable space wasted.

F. T.

Surgery for Nurses. By CHARLES WELLS, M.B., F.R.C.S. Published by Messrs. E. & S. Livingstone. *Price* 10*s.* 6*d.*

THIS is a very good, compact work on Surgery for Nurses. The subject is presented in a clear, straightforward manner. The diagrams are numerous and should be most helpful to the nurse in understandiug the pathological conditions and the operations performed.

Surgery of special areas is also included. There are useful, though brief, sections on the surgery of gynæcological cases, diseases of the ear, nose and throat, genito-urinary system, etc. The book can be thoroughly recommended.

F. T.

A Textbook of Medicine for Nurses. By E. NOBLE CHAMBERLAIN, M.D., M.S., F.R.C.P. Published by the Oxford University Press. Third Edition. *Price* 20*s.*

THIS book needs no introduction to the nursing profession. It has been used in schools of nursing for the last seven years. It is a comprehensive book on medical nursing, and can be recommended with confidence, both to nurses in training as a complete guide to medical nursing and to the trained nurse as a reliable book of reference. New sections have been added, and some parts have been extensively revised. The illustrations have always been a strong feature of this book, and new ones have been added to the third edition.

Nurses find the summary in the appendix extremely useful. It gives the cause and nature of the disease, symptoms and treatment in a nutshell. It is useful as a check after reading. We wish the book the success it deserves.

F. T.

Mental Nursing in Observation Wards. By J. M. SCLARE, L.R.C.P.S. Published by Messrs. E. & S. Livingstone. *Price* 6*s.*

THE nursing profession will welcome this compact little book on the interesting subject of the nursing of mental disorders. The subject is presented in a most interesting way and should stimulate nurses to learn more of this extremely interesting branch of work. It should be used by nurses engaged in general nursing as well as those specialising in mental nursing. Physical and mental illnesses are in many ways inseparable, and this inexpensive little book should help all nurses.

The description of the different types of disorders and brief case studies are graphically portrayed.

In spite of what the author says, the writer feels that it is better to give an account of normal psychology before proceeding to the abnormal.

I do not think that Chapter X would produce that "wall of resistance" in students' minds if it were placed at the beginning of the book.

F. T.

Elementary Anatomy and Physiology. By JAMES WHILLIS, M.D., M.S., F.R.C.S. *Price* 12*s* 6*d*.

ORIGINALITY is always a virtue. "Elementary Anatomy and Physiology" has this virtue, for no other book of its kind has, as yet, been published. It neither supplements, nor enters into competition with, any other volume on physiology or anatomy.

To those who have taught the second-year student, it is evident that the transition between the study of biology, on the one hand, and the detailed study of anatomy and physiology, on the other, is too abrupt.

How often we see a student struggling with the complicated relationships of the great vessels and nerves in the axilla without even appreciating the significance of the terms by which they are described. He picks up the trail of the axillary artery at the outer border of the first rib, scarcely knowing from whence it came or where it is likely to lead him.

Professor Johnston recognised this fact when he decided to give these students the benefit of a course of elementary lectures, but, in his own inimicable words, quoted from the Foreword to this volume, "Much of the value of the spoken word was lost for lack of its reiteration in print." The spoken word has now been adequately reiterated.

The author has presented the study of the structure and function of the body as a whole in a sound, simple and well co-ordinated manner in his book, so that after its perusal the student should be well equipped to study the individual parts of the body in detail.

The book can be unhesitatingly recommended to nurses, to whom it gives all the details required, and to students who have just completed their first year. We suggest that the latter should "browse over" it during the long summer vacation before commencing anatomy and physiology, and should read it again in more detail in association with the course of elementary lectures above referred to.

The author is to be congratulated on the idea underlying the book, and also upon its execution. The text is simple, function and structure are interestingly correlated, an immense field is covered in a short space without the appearance of condensation, and the illustrations are excellent. The continuity of the section on muscles would have been improved had the description of the physiology of muscular contraction followed on the opening remarks.

This is a book that no nurse or medical student can afford to be without.

Entry of Students, October, 1938

Medical

Name	*School or College*	*Year*
Allen, R. A.	Worksop	1st M.B.
Barclay, R. F.	Wandsworth School	1st M.B.
Barker, M. A.	Forest School, Snaresbrook	1st M.B.
Bezboruah, N. K.	Presidency College, Calcutta	1st M.B.
Bull, J. P.	Queens' College, Cambridge	4th Year.
Charlton, D. W. F.	Fettes and Queens', Cambridge	4th Year.
Cole, P. L. G.	City of London and Bournemouth Municipal	2nd Year.
Crabtree, J. W. A.	Wrekin and Christ's, Cambridge	4th Year.
Cremin, D.	Mount St. Mary's, Sheffield	1st M.B.
Cross, M. C.	Lancing and Trinity, Cambridge	4th Year.
Davies, D. G. Hughes	University College, Cardiff	1st M.B.
Dickie, A. B.	Plymouth College	1st M.B.
Dodd, F. G. B.	Alleyn's	2nd Year.
Ebsworth, J. S.	Haverfordwest Grammar	1st M.B.
Eckstein, P.	Downing College, Cambridge	4th Year.
Eminson, R. N. M.	Epsom	2nd Year.

Name	*School or College*	*Year*
Enderby, J. M.	College of Technology, Manchester	1st M.B.
Fox, K. T.	St. Joseph's Academy, Blackheath	1st M.B.
Fox, Wallace	Cotham Secondary, Bristol	1st M.B.
Garland, G. W.	Christ's Hospital	1st M.B.
Gillman, N.	Downing College, Cambridge	4th Year.
Goodhart, J. G.	Rugby and Trinity Hall, Cambridge	4th Year.
Graham, A. J. P.	Prior Park College, Bath	1st M.B.
Green, R. A.	Bishop's Stortford	1st M.B.
Gullick, D. L.	Taunton	2nd Year.
Haas, G.	Budapest	1st M.B.
Hargreaves, A.	Burnley Grammar	1st M.B.
Harrett, W. T.	Llandovery	1st M.B.
Hart, J.	Harrow County	2nd Year.
Hills, H. F.	Tonbridge	1st M.B.
Horley, J. F.	Epsom	2nd Year.
Kent, J. V.	Dulwich	1st M.B.
Knight, F. R. S.	Epsom	1st M.B.
Lau, F. K.	Downing College, Cambridge	4th Year.
Lewis, H. J.	Central Foundation	2nd Year.
Luntz, G. R. W. N.	University of Witwatersrand	4th Year.
McCallum, R. I.	Dulwich	2nd Year.
Macrae-Gibson, A. C.	St. Dunstan's	2nd Year.
MacDonald, K. A.	City of London	1st M.B.
McLaren, L. R.	Epsom and Downing, Cambridge	4th Year.
McNally, H.	Diocesan College, Cape Town	1st M.B.
Menzies, J. H. D.	Tonbridge	1st M.B.
Merryweather, R.	Rutlish	1st M.B.
Morgan, J. K.	Whitgift	1st M.B.
Nissim, J. A.	Chelsea Polytechnic	2nd Year.
O'Brien, G. H.	Bishop's Stortford	1st M.B.
Ogilvie, J. P. H.	Clifton and Corpus Christi, Cambridge	4th Year.
Palmer, D. D.	Hilton College, Natal	1st M.B.
Palmer, M. S. Morton	Charterhouse and Jesus, Cambridge	4th Year.
Parry, T. C. L.	Uppingham	1st M.B. (Camb.)
Petty, W. H.	Epsom and Queen's, Cambridge	4th Year.
Parkin, R. T.	Portsmouth Grammar	2nd Year.
Rajah, A. M.	Aligarh Muslim University	2nd Year.
Rankin, M. S.	Glasgow Academy and University College, Nottingham	1st M.B.
Ribet, G. L. P.	Royal College, Mauritius	1st M.B.
Rose, J. A.	University of Western Ontario, Canada	1st M.B.
Rosenberg, A.	King's College School, Wimbledon	1st M.B.
Rosenberg, D.	Raine's Foundation	2nd Year.
Shah, N. Jivan	St. Louis, Seychelles	1st M.B.
Sharp, C. L. E. H.	Blundell's	1st Year.
Sherwood, M. P.	Epsom and Queens', Cambridge	4th Year.
Smith, J. S.	Newcastle High School, Staffs.	1st M.B.
Spence, K. A. E.	Bedford	1st M.B.
Steele-Perkins, P. E.	Wellington and St. John's, Cambridge	4th Year.
Steer, Charles	Uppingham	1st M.B.

Name	*School or College*	*Year*
Strigner, A. E.	St. Aloysius'	1st M.B.
Sugden, W. S.	Uppingham	1st M.B. (Camb.)
Tait, D. A.	Wellingborough	2nd Year.
Tewfik, L.	King's School, Rochester	1st Year.
Thompson, R. C. W.	Birkbeck	1st M.B.
Thorburn, T. A.	Polytechnic, Regent Street	1st M.B.
Tibbs, D. J.	Wallington County	2nd Year.
Trounce, J. R.	Brighton College	1st M.B.
Vulliamy, D. G.	Bromsgrove and Trinity, Cambridge	4th Year.
Weber, J. C. P.	Latymer Upper	1st M.B.
Whamond, W. N.	South African College, Cape Town	1st M.B.
Whitehouse, J. D.	Uppingham	1st M.B.
Whitworth, H.	Epsom	1st M.B.
Williams, Evan	Dolgelley Grammar	3rd Year.
Wotton, G. R.	Portsmouth Municipal	2nd Year.
Wright, E. G.	King's School, Grantham	1st M.B.
Young, R. D.	Wanstead County High School	2nd Year.

Dental

Name	*School or College*	*Year*
Anderson, D. J.	Christ's Hospital	1st M.B.
Ashton, A. R. K.	St. Clement Danes, Holborn	Pre-Medical.
Barker, B. M.	Epsom	1st Year.
Beare, R. H.	University College School	1st M.B.
Bevan, H. L.	Colston's School, Bristol, and Swansea Technical	1st Year.
Bowers, J. F.	Cardinal Vaughan	Pre-Medical.
Bronsdon, N. P.	Roan School, Blackheath	Pre-Medical.
Brown, D. E. M.	Bradfield	1st M.B.
Brown, G. A.	Portsmouth Grammar	1st Year.
Boyd, D. C.	Durban Boys' High School	Pre-Medical.
Chase, G. S.	Watford Grammar	1st Year.
Cheevers, I. P.	Christ's Hospital	1st Year.
Chester, C. G.	Whitgift	1st M.B.
Clarke, R. G. H.	Cardiff Technical	1st M.B.
Clokey, K. E.	King's College School, Wimbledon	1st Year.
Cohen, J. Z.	University College School	1st M.B.
Collins, T. C.	Illinois, U.S.A.	Pre-Medical.
Cook, D. F. L.	Whitgift	Pre-Medical.
Cox, J. C.	Christ's Hospital	1st M.B.
Crossman, W. L. J.	Epsom	Pre-Medical.
Dicker, B. H.	Epsom	1st M.B.
Drury, J. W.	Dulwich	1st Year.
Dyke, J. E.	Bancrofts, Woodford	Pre-Medical.
Eugster, C. M. E.	St. Paul's	Pre-Medical.
Farrant, P. G. C.	Wellington	1st Year.
Finney, R.	Merchant Taylors'	1st M.B.

Name	*School or College*	*Year*
Gibb, G. D.	St. Helen's, Southsea	Pre-Medical.
Glover, E. A.	Kingston Grammar	Pre-Medical.
Goodwright, A. J.	Thames Valley County	1st M.B.
Griffith, D. M.	University College School	Pre-Medical.
Grudgings, T. P.	University College, Leicester	1st Year.
Grummitt, P. C.	Maidstone and Rye Grammar	1st M.B.
Halden, J. R.	Epsom	1st Year.
Hamill, H. J. P.	Reay School, S.W.	Pre-Medical.
Harris, D. G. D.	Polytechnic, Regent Street	Pre-Medical.
Holloway, S. D.	Ipswich	1st M.B.
Howe, P. F.	Highgate	1st M.B.
Humphrey, E. A.	King Edward VI, Southampton	1st M.B.
Hunter, R. J.	Hurstpierpoint	2nd Year.
James, H.	Llandovery	Pre-Medical.
Johns, G. E.	University College, Cardiff	1st M.B.
Keith-Fraser, A. C.	Eastbourne	Pre-Medical.
Kettle, M. A.	Polytechnic, Regent Street	1st Year.
Large, P. G.	Michael House, Natal	1st M.B.
Lee, A. B.	City of London	1st M.B.
Lee, B. C.	Southend High School	1st M.B.
Lewis, J. W.	Owen's School	1st M.B.
Matthews, C. S.	Kent College, Canterbury	Pre-Medical.
Matthews, J. C.	Gresham's, Holt	Pre-Medical.
Middleton, D.	Highgate	1st Year.
Middleton, R.	Highgate	1st Year.
Mistlin, H.	Strand School	Pre-Medical.
Morrant, G. A.	St. John's, Leatherhead	1st M.B.
Phillips, J. H.	Swansea Grammar	Pre-Medical.
Platt, J. J.	Technical College, Bradford	1st Year.
Pountain, J. E.	St. Dunstan's	Pre-Medical.
Rayner, D. J.	Friends' School, Saffron Walden	Pre-Medical.
Reaney, D. A.	Merchant Taylors'	Pre-Medical.
Richards, J. G.	Trent College	Pre-Medical.
Rosen, M. C.	Highbury County	1st Year.
Silcock, J. L.	Grammar School, Macclesfield	1st Year.
Simons, V. L.	East Hove Senior Boys'	1st Year.
Smith, D. C. Grantley	Watford Grammar	Pre-Medical.
Stuart, C. E.	Dauntsey's	1st Year.
Tarn, A. H.	St. Paul's	Pre-Medical.
Taylor, B. H.	City of London	Pre-Medical.
Taylor, S. H. B.	Aldenham	Pre-Medical.
Tipper, R. A. S.	Portsmouth Grammar	1st Year.
Trott, M. G.	Brighton	Pre-Medical.
Vanscolina, A. B.	Latymer	Pre-Medical.
Wardill, P. J.	Felsted	Pre-Medical.
Warren-Peachey, L. B.	Prior Park, Bath	Pre-Medical.
Whatley, J.	Clifton	1st Year.
Wilson, B.	City of London	Pre-Medical.
Wood, F. M.	Municipal College, Bournemouth	2nd Year.
Wyatt, R. C. G.	Chigwell	1st Year.
Yerbury, J. K.	Epsom	Pre-Medical.

Sport

Rugby

Guy's v. Old Blues

(At Honor Oak Park on Saturday, October 1st.)

THE United Services, Portsmouth, were due at Honor Oak Park, but, owing to the international situation, they were compelled to cancel the fixture. However, the Hospital were fortunate in being able to arrange another game with the Old Blues and, after a splendid match, they won by 2 placed goals (10 points) to a placed goal and a penalty goal (8 points).

Guy's were not quite at full strength, as Babrow damaged an ankle whilst playing in the Jubilee match at Bristol, and Forbes was unable to turn out on account of an injured hand.

Kynaston partnered Dick in the centre and R. F. Camp, who had been showing good form with the "A," made his first appearance in the three-quarter line.

During the first half, the visitors had the advantage of the wind, and in the early stages kept the Hospital penned in their goal line. Several fierce scrummages took place near the posts before Dick relieved and found touch near mid-field. Guy's started a movement which carried them into the Old Boys' 25, where Steytler made a splendid attempt to break through. Over-anxiousness cost the Old Boys two penalties (one in front of the posts), but no score resulted.

Profiting by this let-off, the Old Boys set up another attack, and but for some magnificent tackling, would have scored. On one occasion Halamandres just managed to collar his man only a yard from the line, but the persistency of the visitors was rewarded when Down flashed through the centre, passed to Evans, who touched down in an easy position for Fulford to add the goal points.

After this reverse, Guy's improved, and several movements initiated by Halamandres and Steytler looked promising, but the Old Boys marked their men closely and seldom allowed the Hospital threes to become dangerous.

After the interval, a ding-dong struggle followed, but eventually Guy's took command of the game and Dick came within an ace of scoring, following good work by the Hospital halves.

Darke and Wiggins stood out in a raid by the forwards, who dribbled the ball over the line, but just missed the touch-down.

Good work by Fletcher enabled Steytler to create an opening for Dick, who sent Camp away on the wing; the latter shook off a tackle and managed to reach the line for a try near the corner flag, and Plowman made the scores level with a magnificent kick taken from the touch-line.

Guy's continued to hold the upper hand and were playing attractive football. The forwards were in great form; they secured the ball in most of the set scrums and always threatened danger in the loose.

On one occasion, Dick crashed through the middle and was going hard for the line when he was overtaken and pulled down from behind.

Guy's were awarded a penalty for charging in the line-out, but Plowman missed a good chance to kick a goal.

Having established themselves in the Old Boys' 25, the Hospital forwards set up attack after attack, but they could not make any impression on a cast-iron defence. However, Guy's took the lead a little later when, following a drop-out, Darke charged down the kick-off, dribbled the ball a few yards, and cross-kicked over the line for Sharpe to pounce on the ball and register a try behind the posts. Plowman made no mistake with the kick.

Only a few minutes remained for time, and Guy's continued to press hard, but they had a set-back when Kolesar was penalised after checking a dangerous raid and Fulford landed a splendid goal from forty yards out.

The Old Boys made a gallant effort to snatch victory near the end, and, following a long punt ahead, Hanson won an exciting race for the touch-down.

It was a grand finish, and on the run of play Guy's just about deserved their success.

Team.—R. D. Plowman; R. F. Camp, R. U. F. Kynaston, R. C. S. Dick, J. M. Hanson; J. van A. Steytler, C. Halamandres; D. N. Fuller, R. M. Sharpe, C. C. Vidot, J. C. Bulstrode, P. Fletcher, C. S. Darke, A. E. M. Wiggins, P. D'O. Kolesar.

Guy's v. Aberavon

(*At Port Talbot on Saturday, October 8th.*)

AFTER a thrilling struggle Guy's were defeated by 2 placed goals, a penalty goal and a try (16 points) to a try (3 points).

Whenever the Hospital visit Aberavon they are assured of a splendid welcome, and on this occasion they received a rousing reception both before and after the game.

It was a pity that the weather conditions were so wretched; during the first half rain fell continuously, but, although the ground was heavy, both teams overcame the difficulties and handled the slippery ball exceedingly well.

Guy's put up a great fight and held their own until Halamandres, who was playing a sound game at scrum half, injured his shoulder before the interval and took no further part in the game.

The Hospital forwards were excellent and improve in every match: they were hard workers, full of fight from start to finish, and Darke, who has succeeded R. C. S. Dick as skipper, played no small part in keeping the heavy Aberavon forwards in check.

Before his injury, Halamandres was continually doing good work, and he had an excellent partner in Van Steytler. Although closely marked, Dick got through a great deal of work, and on several occasions showed how dangerous he could be under fair conditions.

Guy's surprised their opponents by scoring a well-deserved try after three minutes' play. Camp took a pass from Kynaston, raced down the wing, passed inside to Kolesar, and the latter sent Bulstrode over the line, too far out for Plowman to convert.

Aberavon drew level ten minutes later when J. Brothers, an exceptionally fast back-row forward, crowned a great forward rush by gaining the touchdown, but James failed to add the goal points.

They took the lead with a spectacular try when Evans and Drew opened out play, allowing G. Davies to burst through and put J. Thomas over with a try, which James converted.

After the interval, Guy's tried hard to find an opening, but the absence of Halamandres was a big handicap. Gradually Aberavon pressed the Hospital in their 25 and, following a scrum in front of the posts, Guy's were penalised for offside and James kicked an easy penalty goal.

The Hospital forwards disputed every inch of ground and often turned defence into attack. On one occasion a grand counter-offensive nearly resulted in a score, but James bobbed up from the blue and saved a difficult situation.

Near the end, Aberavon increased their lead when D. Griffiths received the ball from a long throw-out and ran in for a try, which James converted.

Team.—R. D. Plowman; R. F. Camp, R. U. F. Kynaston, R. C. S. Dick, J. M. Hanson; J. van A. Steytler, C. Halamandres; D. N. Fuller, R. M. Sharpe, C. C. Vidot, J. C. Bulstrode, P. Fletcher, C. S. Darke, A. E. M. Wiggins, P. D'O. Kolesar.

Guy's v. Coventry

(*At Honor Oak Park on Saturday, October 15th.*)

A LARGE crowd turned up to welcome Coventry, and after a very interesting game the Hospital were defeated by 2 placed goals (including the conversion of a penalty try), 3 penalty goals, a dropped goal and a try (26 points) to a penalty goal and a try (6 points).

The game was nothing like so one-sided as the score suggests, and, taking everything into consideration, Guy's have every reason to be satisfied.

Their forwards were opposed to one of the finest and heaviest packs in the country, and they came through the ordeal with great credit. As expected, they were beaten in most of the set scrums, but it is doubtful whether Coventry would have held such a decided advantage had they been without their hooker, G. G. Gilthorpe, late of the Wasps and considered to be a serious rival to Tofts for a place in the English team.

In the loose the Hospital forwards were magnificent; Fletcher, Fuller and, until he was injured, Wiggins caught the eye time after time, and were always threatening danger.

Eustace, who was deputising for Halamandres, had a thankless task and had few opportunities to set his backs in action; however, he made the most of the opportunities that came his way, in spite of the close attention paid to him by Coventry's wing forwards.

The threes had few chances to show their skill, but on one occasion late in the first half they carried out a grand movement at top speed, which ended in Hanson registering a great try.

J. S. Breen-Turner, formerly of Bromsgrove, was included at right centre and proved an excellent partner for R. C. S. Dick. Coventry included Purchas, who had just returned from South Africa, but Giles was a notable absentee.

The ground was in excellent condition and in perfect weather Guy's kicked off against the wind. They soon found a footing in Coventry's 25 and forced several scrummages near the line before Pateman sent them back with a terrific kick which found touch at the halfway line.

The visiting forwards then took up the attack and, following a scrum near the Hospital's 25,

Sharpe was penalised for foot-up and Walton kicked a goal.

A little later Coventry increased their lead when Venn, their scrum-half, raced through and scored an unconverted try.

For a time the exchanges were fairly even, but Coventry took care that the Hospital never came within striking distance. The tackling on both sides was excellent, and very few movements were allowed to proceed far. However, Coventry profited by the wind and kept Guy's at arm's length as the result of some fine touch-finding by Kenyon.

Another penalty against Guy's for a scrum infringement enabled Coventry to increase their lead as the result of a good kick taken by Walton, and in a few moments Nicoll raced in for a try, which Walton converted.

Guy's redoubled their efforts, and eventually Steytler managed to find an opening and started one of the best movements of the afternoon.

Breen-Turner accepted the pass and quickly transferred to Dick, who crashed through a crowd of opponents and finally sent Hanson away on the wing. The latter ran like a deer and had a difficult passage before he grounded the ball for a try, too far out for Plowman to convert.

Guy's started the second half full of confidence and for a time had Coventry guessing. Within five minutes the Hospital reduced the deficit when Plowman landed a fine penalty goal, and it looked as though the Hospital would at least hold their own. They continued to play good football, and with a little luck might have scored again when the ball bounced awkwardly as Hanson raced up to touch down.

Unfortunately Guy's gave away another penalty in front of the posts, and Walton made no mistake with the kick, and a little later Kenyon took a chance shot at a dropped goal and the ball just skimmed the cross-bar near the far upright.

The Hospital stuck to their task and, although they were awarded several penalties, nothing came of the kicks.

A few minutes from time, Coventry carried out one of their passing movements for which they are renowned, and with forwards and backs supporting each other they carried play to the Hospital's 25. Here they were checked, and, finding himself unable to make headway, Kenyon cross-kicked to his right wing, and a thrilling race between Hanson and Nicoll followed.

Nicoll made a great effort to secure the touch-down, but before he could reach the ball Hanson in the excitement sent him sprawling, and the referee awarded a penalty try under the posts, and Walton added the goal points.

Guy's need not worry over this reverse, the team as a whole showed great promise and should do well in future games.

Team.—R. D. Plowman; R. F. Camp, J. S. Breen-Turner, R. C. S. Dick, J. M. Hanson; J. van A. Steytler, T. H. Eustace; D. N. Fuller, R. F. Sharpe, J. P. Rochford, J. C. Bulstrode, P. Fletcher, C. C. Vidot, A. E. M. Wiggins, P. D'O. Kolesar.

Hospital Information, etc.

Pass List

CONJOINT BOARD.

PRE-MEDICAL EXAMINATION.

September, 1938.

Chemistry.

G. E. Meech.

Physics.

S. E. Blockley — G. E. Meech

Elementary Biology.

J. F. Baker — F. J. Piercy
S. E. Blockley — S. H. B. Taylor
J. S. Breen-Turner — J. M. Thomas
B. J. Dupree

Papers by Guy's Men

Macintosh, R. R., and Another. Carbohydrate metabolism in anæsthesia: A review. *Brit. Med. J.*, 1938, ii, 695.

Hallpike, C. S., and Another. Observation on the pathology of Ménière's syndrome. *J. Laryng.*, 1938, liii, 625.

Todd, T. F. Radiotherapy of menopausal menorrhagia. *Lancet*, 1938, ii, 821.

Ryle, J. A. Bacteriæmia. *Ibid.*, 867.

Simpson-Smith, A. Sarcoma of the intestine in children. *Brit. J. Surg.*, 1938, xxvi, 429.

Eason, H. L. Dental education and practice. *Brit. Dent. J.*, 1938, lxv, 477.

Bulleid, Arthur. A review of the ætiology and treatment of pyorrhœa. *Ibid.*, 494.

Changes of Address

Gavin Thurston, M.R.C.P., D.C.H., Terrace House, Brentwood, Essex. *Tel.* 231.

Leslie James Bailey, L.D.S., R.C.S., 4, York Row, Wisbech, Cambs.

Death

GODSON.—On 3rd October, 1938, at "Sherrington," Grove Road, Beaconsfield, Alfred Henry Godson, M.B., F.R.C.S. (retired), and formerly of "Oak Bark," Windsor Road, Oldham, in his 72nd year.

EDS. { C.H.E. W.E.Y.

GUY'S HOSPITAL GAZETTE

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PASSIM

THIS Hospital has, in the past, gained a world-wide reputation for the training of medical students and for the production of a type of competent and essentially practical practitioner. That this high regard for the Guy's man has existed in the minds of both the professional colleague and the lay public is undeniable, and there appears to be ample evidence that it has not been an ill-deserved honour. The reason for this reputation may be found in the fact that the authorities here in the past have argued with sound judgment that in order to turn out a practical doctor who is confident and capable of tackling the many-sided problem of medical practice they must concentrate the bulk of the students' time on clinical matters at the bedside, and also to give him some responsibility from his earliest days of training. So it was that at Guy's the student was encouraged to study medicine in the ward and to take every opportunity to make use of the free access he was offered to the patient. He was given the minimum of lectures and spoon-feeding in general. With this simple but none-the-less important doctrine as a foundation, with the amenities of a large general hospital with an ever-changing complement of cases, with an honorary and junior staff who were able to demonstrate on the patient in the ward, with the opportunities of watching treatment first-hand, and in fact taking part in the employment of that treatment, it is no wonder that the average man on leaving Guy's was familiar with the correct approach to the patient and had a sound understanding of human disease. He was asked to hang his knowledge firmly on the lumps and bumps of his patients and not to pin it insecurely on the flat words of the lecturer. This type of training was undertaken in the belief that the quicker the student got amongst and learnt the habits of the animals he was studying, and the less he had to rely on still pictures in poor colour and no relief, then so much the better. It worked well, for as we have said the school had a reputation for producing a sound article with a ready market. As we look back, therefore, upon the history of the Medical School we have every reason to feel that our predecessors were right and that their methods of manufacture were above reproach.

An obviously good tradition such as this is, we feel, one to be nurtured carefully and not allowed, by reason of neglect, to lapse from its originally high standard. To this you would agree. Now as we look about us and analyse our student days here at Guy's it is apparent that the old beliefs that formed the essence of the training still hold good, namely, that we are not lectured at to excess and that we are encouraged to spend much of our time in the wards either being taught or familiarising ourselves with the details of the patients' troubles. On the face of it, therefore, we are getting precisely the same type of training that our predecessors had before us, and it would appear that there is no need to coddle or fuss over the old tradition at all.

One cannot, however, live here for long without hearing rumours that express incomplete satisfaction with the conditions of education during the Clinical period, these rumours arising from the students themselves who are perhaps in a position best able to criticise. Most of the criticism, though perhaps not all, is directed against the overcrowding that exists to-day in nearly all departments. There are, it is said (and we cannot deny it), too many students passing through

the Hospital and though the numbers may not appear unseemly during Pre-Clinical studies, when organised lectures are more in evidence, and when presumably there is adequate laboratory accommodation for all, it becomes a serious menace to proper teaching when the wards are reached. It is here that the overcrowding becomes an evident disadvantage to the student and teacher, and it is here apparently that the dissatisfaction begins and is continued spasmodically throughout the course. The student is hampered by his own numbers, the teacher is overawed by the number of people he is expected to manage; he cannot allow all of them the freedom he would like with each case, he cannot even take a personal interest in each one of them, he may not know them all by name at the end of three months. He has to talk at them and not with them.

It is obvious that, however admirable the Guy's tradition of teaching may be it must depend absolutely upon sufficient clinical material per student, and upon a personal and individual interest of the tutor for a manageable number of learners. Nor is this problem one which affects Guy's alone. At the present time the number of candidates for admission to Medical Schools throughout the country is in excess of the available clinical material, and this is particularly true of most of the larger teaching schools in London. Although for several years admission to Guy's has been limited to students working for university degrees, there has been no appreciable diminution in the number of entrants.

We believe that the present large admissions are a danger, depriving us of the proven advantages of our particular and delightful methods of learning our subject. It would be wise to review existing conditions in the hope of finding a solution that will prevent us from having to depart from our tradition and forcing us to find a substitute in more organised lectures to complement a declining practical education.

RESEARCH is to be encouraged as we all know, and what more fitting place than at a teaching hospital such as ours? We are proud and, indeed, privileged that a firm of structural engineers should choose Guy's out of all the other London hospitals as the scene of a comprehensive piece of research into the erection of balconies in reinforced concrete. Let this work go on unhindered, we say, for the price we have to pay in the form of flying grit, dust and appalling noise is small. Perhaps it is not too much to hope that when the investigation is complete the workers will leave a series of balconies *in situ* in return for our co-operation.

WE have the pleasure of congratulating Miss R. C. Shackles on her appointment as Matron to the Royal United Hospital, Bath. Miss Shackles has occupied numerous important posts at Guy's, always with skill, never without success, and has of recent years filled the office of second assistant matron. Her ability and her talents will be deeply missed at Guy's, and we feel sure that the Royal Hospital at Bath could have made no better choice for the head of their nursing staff.

We also have the honour to congratulate Mr. W. E. Herbert, M.R.C.S., L.R.C.P., L.D.S. (Eng.), on his appointment to the Professorship of Dental Surgery in London University.

GUY'S Hospital Musical and Operatic Society will be giving the first concert of the season 1938-39 at 8.15 p.m. in the Physiology Theatre on Tuesday and Wednesday, November 22nd and 23rd. Pamphlets and tickets for sale will shortly be ready, and it is hoped that all members of the Hospital, past and present, will support the concert and help to make it widely known. Tickets —reserved, 6*s* and 3*s*.; unreserved, 1*s*.—may be obtained from the Ticket Secretary, Mr. G. A. R. Winston, the Wills Library, Guy's Hospital, S.E.1.

SENIOR students will be interested in an announcement that there will be two films of great practical value shown at the British Medical Association House, Tavistock Square, W.C.1, on Tuesday, 22nd November, at 5.45 p.m. Both films will be commented upon, the first on "The Modern Treatment of Fractures," by Mr. R. Watson-Jones, of Liverpool, the second on "Blood Transfusion," by Mr. Geoffrey Keynes, of London. All students are cordially invited to attend, tickets being obtainable from the Medical School Office.

THE first meeting for the coming session of the Debating Society will be held in the College Smoking Room on Tuesday, 8th November, at 5.15 p.m., when Mr. T. B. Layton will give his Presidential Address on "Peace." Refreshment will be provided, and it is hoped that as many people as possible will be present.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Hiccup

A Clinical Lecture delivered at Guy's Hospital in September, 1938, by Dr. A. H. Douthwaite

GENTLEMEN,—In the lay mind some diseases and symptoms excite sympathy, others derision. My subject belongs to the latter class, and forms company with gout, or a boil on the nose, yet any one of these may lead to death.

Hiccup is produced by clonic spasm of the diaphragm and closure of the glottis. It is of some importance to remember the innervation of these structures, the latter being from the laryngeal branches of the vagus, whilst the former derives it supply from the phrenic nerve originating from the third, fourth and fifth cervical nerves, especially the fourth, and the diaphragmatic plexus of the sympathetic. It is thus clear that there is a vast area over which abnormal stimuli may act in order to produce the symptom.

CAUSES

(*a*) *Central.* 1. During epidemics of encephalitis lethargica, one meets from time to time patients suffering from the most intractable hiccup, sometimes following a short illness, the symptomatology of which may be sufficient for the diagnosis of encephalitis, and sometimes arising independently of any previous illness, but probably, nevertheless, attributable to this disease. It is often characterised by extraordinary regularity of the hiccups, occurring perhaps every minute, or half-minute, and lasting for hours, or sometimes days or even weeks, causing the greatest mental distress, interfering with eating and with sleep until the patient becomes completely exhausted and may, in fact, die.

2. Intracranial lesions occasionally give rise to hiccup, but very rarely. I refer to meningitis, cerebral tumour and hæmorrhage. I can recall one case of tuberculous meningitis in an adult in which hiccup lasted for three days immediately prior to death. I have seen two examples of hiccup following, and apparently due to, a severe blow on the head. One subsided in a week, another in two weeks.

3. Toxic.—The most important member of this group is uræmia, and the hiccup is presumably to be attributed to a toxic effect on the centre in the cord. In point of fact, however, if one looks into the matter, we find that in most cases where hiccup is associated with uræmia, the latter has arisen as the result of enlargement of the prostate, and does not usually occur until an operation has taken place, often in the nature of suprapubic drainage. This at once introduces a doubt into one's mind as to whether it is, in fact, the uræmia which is causing the hiccup, or whether it may not be a reflex either from the site of operation or, more probably, from the frequently associated meteorism which seems peculiarly liable to follow this surgical procedure on elderly men. However, cases do arise in what we might term "medical uræmia," so that we can, I feel, accept it as a possible cause. Pneumonia is another disease which may be accompanied, but usually followed, by hiccup. I have notes of five cases of lobar pneumonia, all terminating apparently satisfactorily in crisis, and then followed by hiccup and lasting for a few days. In two of them the patients became mentally confused after the fall of temperature and exhibited that peculiar fine twitching of muscles which is so common in uræmia. In one the blood urea rose to 340 mgms. per 100 c.c., in the other to 250 mgms. These are examples of transient uræmia, neither of them being associated with albuminuria. They recovered. In typhoid and cholera, hiccup may occur in association with grave illness of the patient, but whether again this is due to a toxic cause acting on the central point of the reflex arc, or whether it is due to peripheral irritation of the alimentary tract is by no means clear. It is stated that gout may cause hiccup. I have yet to meet a case, but one should remember that in chronic gout there is almost invariably renal damage and frequently uræmia developing.

4. Senile changes in the medulla and cord.—This explanation of senile hiccup is plausible, but difficult of proof. Very old people, that is to say those over eighty years of age, are sometimes seized with hiccup lasting for several days, then usually subsiding only to recur again in a few months.

5. Hysterical.—This probably forms the most important member of the central group. The symptom is rarely one seen in ambulatory hysterical patients, but it is frequently initiated by some organic cause, especially an abdominal operation, and then perpetuated as the result of hysteria. It is consequently relatively common in doctors and nurses after abdominal operations who, when they develop the usual flatulent distension on the third or fourth day, immediately assume that they have general peritonitis.

(*b*) *Irritative lesions of the phrenic nerve.*—1. Cervical.—Theoretically various lesions in the

neck give rise to hiccup. So far as I know, I have only met one which could be explained in this way. It was in a man of 46 who fell from a chair and in so doing struck the side of his head on the wall, flexing it forcibly to the opposite side. There was some tenderness of the left side of the neck, and hiccup developed within twenty-four hours and lasted with diminishing intensity for three weeks.

2. Thoracic.—The extensive anatomical relationship of the phrenic nerve in the thorax can naturally suggest many diseases which might give rise to hiccup. In point of fact, it is uncommon to find a thoracic cause. Mediastinal pleurisy may certainly act thus. Pericarditis, mediastinal tumour and aneurysm have been reported to do so, but these examples are outside my experience.

3. Diaphragmatic.—Subjects of diaphragmatic hernia may suffer from hiccup from time to time, but whether this is referable to the lesion in the diaphragm, or whether, as seems to me more probable, to secondary changes in the stomach, is difficult to determine. Diaphragmatic pleurisy may be the explanation of some of the pneumonic cases. Sub-diaphragmatic abscess, on the other hand, and, I believe, more often irritation of the diaphragm from deposits of new growth in the liver may certainly produce hiccup, although again rarely.

(*c*) *Reflex.*—We now come to quite the most important list of causes.

1. Stomach.—In children the bolting of food, or eating food which is too hot, is a well-known cause of harmless hiccup. It is strange the association which exists in the minds of the public between the drunken man and outbursts of this symptom. Actually it is not common to meet in life a drunkard who behaves in any way like his counterpart on the music-hall stage. This may well be due to the fact that the reflex centres are depressed quickly by alcohol, whereas it takes a considerable time for true irritation of the stomach to be produced by the drug. The chronic alcoholic, on the other hand, is usually the victim of gastritis, which may well cause hiccup, but not in his exalted moments, but rather in those of depression associated with the breakfast table. There seems to be a considerable group of men in which heavy smoking causes vague indigestion, and frequently precipitates, as the result thereof, hiccup lasting for an hour or two. Strangely enough, the more easily demonstrable diseases of the stomach seldom cause it, though I have seen two examples, both in elderly men with a slowly progressive carcinoma of this organ.

2. Liver.—I have referred to the hiccup associated with secondary deposits in the liver, but it may be accepted that hepatic causes are, in fact, very rare, though theoretically numerous.

3. Intestines.—Most of the patients with hiccup you will see in hospital derive this symptom from their stomach and intestines, which are suffering from the effects of a recent abdominal operation. Often the cause is merely post-operative atony with gaseous distension, and, as I have already indicated when speaking of prostatic disease, I believe that in many of the so-called uræmic cases the cause is, in fact, enteric. It is so often seen in elderly subjects who lie back exhausted on their pillows with sunken eyes and distended, tympanitic abdomen, unable to eat or drink for fear of producing a fresh paroxysm of hiccup and immediately suspected of a spreading peritonitis. Fortunately, however, this fear is commonly not realised, and when measures are taken to relieve the distension, the hiccup subsides. The symptom is, however, in such cases always a source of anxiety. In children, hiccup may be produced by intestinal parasites, usually of the threadworm variety. The diagnosis can always be made from a search of the stools for ova, whereas it may not be otherwise suggested by symptoms one commonly associates with this infestation.

4. Prostate.—Once again we meet the prostate in connection with hiccup, but here I am thinking of pre-operative cases with normal blood urea. It is a peculiar, and so far as I know, an unexplained fact that many men with enlargement of the prostate suffer to an extraordinary degree from intestinal flatulence. Occasionally they are given to bouts, usually quite short ones, of hiccup which cease to trouble them once the prostate has been dealt with. It is a difficult point to prove, but I suspect that once again the real cause of the hiccup lies in the disturbance of the alimentary tract.

DIAGNOSIS

Although for convenience of description I have tabulated these causes of hiccup, it is clear that one cannot, and should not, attempt to review them in one's mind when faced with a patient in whom this is the presenting symptom. In practice it will be found that nearly every case of hiccup owes its origin to something amiss in the abdominal cavity, and it is here that we should concentrate our attention, having, of course, obtained a history of the case with meticulous care. Acute or chronic dilatation of the stomach, with or without intestinal meteorism, generally provides the answer. Failing this, consider uræmia and hysteria.

PROGNOSIS

Most patients with hiccup recover. The epidemic type, especially in people over sixty, is associated with a bad prognosis. The post-operative type must always present a doubtful, though by no means hopeless, prognosis, unless associated with peritonitis, when death is the rule. Post-pneumonic hiccup is usually followed by recovery. Hiccup in wasting diseases, such as carcinoma, naturally carries with it the prognosis of the disease, and in the later stages of severe fevers, especially typhoid fever, the prognosis is unfavourable.

TREATMENT

(*a*) *Empirical.*—You will observe from the list of methods of stopping hiccup that no one of them can be relied upon to do the trick. Of the empirical forms, many have been devised by the sufferers rather than by our profession. The induction of sneezing, either by tickling the nose with a feather or, more pleasantly, by the taking of snuff, may cut short a paroxysm. Vomiting has often the same effect, and this can be induced by any simple emetic. Drinking from the wrong side of the tumbler, as it were, is an acrobatic feat which requires the maximum amount of concentration, and is alleged to stretch the phrenic nerve. Whatever the explanation, there is no doubt that it often cures. Holding the breath for as long as possible may act either as a positive method of checking the diaphragmatic spasms, or possibly by causing a rise of alveolar CO_2. Putting a tight binder around the epigastrium, or applying faradism to the epigastrium are sometimes effective, and the latter is particularly suitable for hysterical patients.

(*b*) *Counter-irritation.*—1. Forcible traction of the tongue is a very unpleasant and uncertain method of stopping hiccup.

2. The same may be said of blistering the skin over the distribution of C.3 and 4 above the clavicle.

(*c*) *Attack nerve.*—1. Firm pressure about two inches above the clavicle at the outer border of the sterno-mastoid applied on both sides I have seen to act dramatically, but, alas, seldom.

2. Enthusiasts, with a nice knowledge of the anatomy of the neck, claim that the injection of novocaine into the nerve will promptly arrest hiccup.

(*d*) *Central attack.*—1. Breathing in and out of an ordinary paper bag; or—

2. Producing the same ultimate result, but more scientifically and impressively, by breathing a five or seven per cent. mixture of carbon dioxide in oxygen are of all methods of treatment of hiccup probably the best. It is a great comfort for the patient to feel that he has the means at his disposal for self-application of treatment which, having been used three or four times, generally puts an end to the discomfort, provided that there is no gross abnormality acting as the initial stimulus.

3. Injection of morphine.—This drug acts, of course, centrally, and is quite justifiable for persistent cases where the general condition of the patient does not call for caution in the use of opium derivatives. It may be life-saving in the epidemic variety.

(*e*) *Abolition of stimulus.*—1. In cases of dilatation of the stomach, chronic gastritis, post-alcoholic gastritis and irritation of the stomach from unsuitable food—lavage usually gives relief.

2. Relief of meteorism is essential, and such steps as the passing of a flatus tube, the giving of prostigmin in a dose of 1 to 5 c.c., or the injection of 1 to 3 c.c. of doryl, which is the urethane of choline, or again the use of $\frac{1}{2}$ to 1 c.c. of pituitrin may completely change the picture of post-operative hiccup from severity to mildness. A very important point to remember is that in these patients it is essential that they should as far as possible reduce the fluid intake, which has usually been pushed to excess, especially after a prostate operation. When the stomach is awash with fluid, hiccup is always likely to arise. It is difficult to strike the right balance, and often necessary to do several blood urea estimations in order to determine its achievement.

3. *Carminatives.*—For mild cases of hiccup, or largely for individuals who are prone from time to time to attacks of hiccup, and who suffer from vague indigestion such as heartburn, flatulence and so on, for which there is no organic cause, carminatives may be of some help, a useful mixture being :—

℞. Tinct. Capsici ..... minims 3.
Tinct. Card. Co. ..... minims 15.
Spr. Chlorof. ..... minims 15.
Aq. Menth. Pip., 2 drachms.

A teaspoonful of Liq. Ammon. Aromat. is again very effective for this purpose, both preparations usually resulting in gratifying and explosive eructation.

(*f*) *Drug Treatment.*—Apart from those drugs mentioned and given for a specific purpose, there are others which are claimed to be of value. In my hands they have failed, but are so often recommended that I feel I should at least mention them. In particular, adrenalin has been lauded for the treatment of epidemic hiccup in injections of five

minims of the usual solution. Similarly, atropine in doses of 1/100th gr., and the inhalation of amyl nitrite have been attributed success.

(*g*) *Psychological.*—In the majority of hysterical hiccups there is no need for profound knowledge of psychological medicine in order to correct the trouble. As I have said, it is a perpetuation symptom and often if this is explained bo the patient and some reasonably impressive treatment instituted at the same time, the trouble will cease. Often the mere suggestion of washing out the stomach will result in instant cessation of the attacks. Hypnosis may be necessary for a few obstinate cases.

It must be remembered that most examples of hiccup show spontaneous recovery, and it is probable that long before one has tried half this formidable list of therapeutic measures, the patient will have no symptoms, or you will have no patient.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Monday, October 18th

I WENT to St. Mary's at 8.30 to do a round with Dr. Rivers, the medical gastro-enterologist. I only meant to stay an hour, but remained 2½; one of the most interesting talks I have had. Talks on and on about gastric ulcer, and not a word of it that I have heard before.

He has analysed 668 hæmatemeses. Of these 90 per cent. were ulcers in stomach or duodenum, 6 per cent. cirrhosis, and only 4 per cent. blood diseases—and other causes. We were discussing a case of hæmorrhage in which cirrhosis, old gastrojejunostomy and diverticulitis all came in. He excluded œsophageal varices by (1) X-ray, more reliable than direct vision as patients are upright, (2) liver function tests.

Gastritis is a condition he sees more of, now they gastroscope everything, either alone, or complicating ulcer. Chief causes are :—

1. Stasis—such as pyloric stenosis.
2. Infection—teeth, tonsils, sinus.
3. Metabolic group—deficiency, especially of Vitamin C. Very common cause in people on Sippy diet.
4. Toxin—nephritis especially.

Treatment.—High vitamin bland diet; eliminate infection, avoid gastric irritants, especially alcohol and tobacco; avoid trauma, direct blows on stomach or sudden raising of intra-abdominal tension.

He is very strong on the factor of trauma in ulcer; gave several instances where a man had had an ulcer quiet for years, and, while feeling well, had a sudden hæmorrhage following on a blow, a fall, lifting heavy case, and so on. He has investigated intraduodenal pressures, and finds they vary greatly from individual to individual and from time to time, and can be raised by outside pressure or muscle contraction. Such a pressure could perforate an old scar, or blow out a vessel in its base.

Peptic ulcer seems to be a series of diseases; there are at least five groups :—

1. *Chemical,* due to excess hydrochloric acid. The type produced by Mann. (Before I forget it, a boy here, Stalker, has done some important work in producing ulcers in dogs with Cincophen, a drug given for rheumatism.)

The characteristic acid secretion of ulcer is not so much high as prolonged. We must not concentrate entirely on the acid side—there is also the defence mechanism, of which the only part we know much about is the pyloric-Brunner secretion. The defence mechanism must equal the acid—does it fail to respond long enough and become exhausted, in the prolonged acid secretion? Mann found you can produce ulcers just as well by tying pancreas as by diverting acid to new part. Ulcers can also be produced regularly by constant feeding of quite weak acid, giving it every half-hour, so that the normal alternation of acid secretion and rest does not occur. Dr. Baker has done this, killing animals from half an hour onwards, to observe the effect on duodenum. The first is a greatly increased outpouring of duodenal secretion, then a regular phlegmonous duodenitis, then an ulcer.

2. *Infective.*—These are the type produced by Rosenow. Rivers quoted example of girl with tonsillitis followed by acute ulcer and hæmatemesis.

3. *Neurogenic,* where worry is the chief factor —possibly arterial spasm the start. The "go-getter" type. This work on pituitary injections producing ulcer may fit in.

4. *Nutritional,* due to insufficient diet, especially in Vitamin C. Very common cause of persistence in people on gastric diet, and of origin in girls

who start slimming, or who eat fancy diets. Leads to capillary fragility.

5. *Traumatic* group.—Diaphragmatic hernia, foreign bodies, etc.

Treatment.—

1. Most important is to educate him in his disease :—
   - *a.* Put him through course of lectures and the museum.
   - *b.* Individual talk over his own problem.
   - *c.* Interview with dietician.
   - *d.* Give his wife a course in diet kitchen.

2. No strict diet; back to light bland food in a week; plenty of Vitamin C.

3. Alkali powders and atropin are used.

4. Duodenal extract grs. xx in capsules at 10 a.m., tea, and bed-time. This extract contains secretin (activating pancreas) and cholecystokynin. Histaminase—which stops cold allergy and is one of the chief things in protecting the body against histamine, is apparently chief constituent. Therefore duodenal extract is most important in after-treatment. They have used it in 450 cases, of whom 94 per cent. are O.K.

He is very keen on the double histamine test meal, used first to find whether pepsin is really secreted in response to histamine, or merely washed out. Finds that whatever curve is, the second follows it exactly, not only in acid but in pepsin. Therefore any alteration by drug or duodenal extract of the second curve is a true index of its effect.

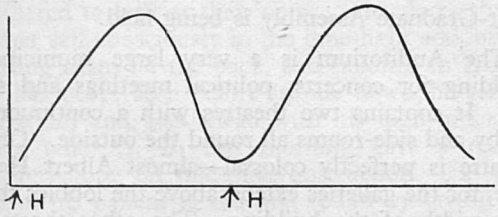

Fig. 66.

I hurried off at 11 to finish my paper. Not having slept it was a great job, but I finally had type corrected and slides arranged by 5, when I slept for an hour. X asked me to supper at 6, and I was hoping like hell for a stiff drink, but all I got was iced water. The Americans are funny about drinks; they never take them when they ought to, and then get together and mop up the most dreadful amounts. I mentioned how young girls will throw down four double whiskies running. But the usual thing seems water at meals (all meals, including breakfast) and then drink parties. The highball merely seems a particularly stiff whisky of unusual type—rye or Bourbon (maize) with lots of ice. A mint julep is the same, with even more ice and a sprig of mint in the top. The party consisted of X, a surgeon, his daughter (a secretary), a niece (also a secretary), another niece (an anæsthetist technician), and her husband (an undertaker)—all in the business.

They took me to the lecture, which seemed to go all right, and then back for a highball, which was too late for my purpose.

Tuesday morning Henderson called to take me on a round—a middle-aged man, very quiet and very sound. Saw Gray in the hospital, whom I have mentioned as perhaps the nicest surgeon in the Clinic; wants his kind regards given to Hurst.

The round was hurried and I have no notes. We saw several slipped epiphyses; if these do not come right by traction, he does an open reposition. Uses a straight anterior incision, only detaching satorius from origin with a bit of bone. Skin cut is further out, halfway to trochanter for his hip exposures. He dissects it out and puts it back; objects, (*a*) to keep flap between him and perineum, (*b*) it sutures under less tension. He chisels away callus, gets epiphysis right, and fixes leg in plaster—no direct fixation of bone.

He also had several herniations of nucleus polposus. Diagnostic points very much those I have elsewhere, especially extradural injection of saline. Also use traction on the leg with strapping extension; this improves a sciatica but makes a nucleus polposus worse.

He is doing a number of hip arthroplasties for ankylosis. Same anterior incision; separates; freshens head and shapes it with cup and acetabulum with burr. Ties cuff of fascia lata over head. Believes right things are prolonged abstention from weight-bearing—a full year—to allow bone to harden up. Slight traction and early movement. Good dodges for moving hips and knees.

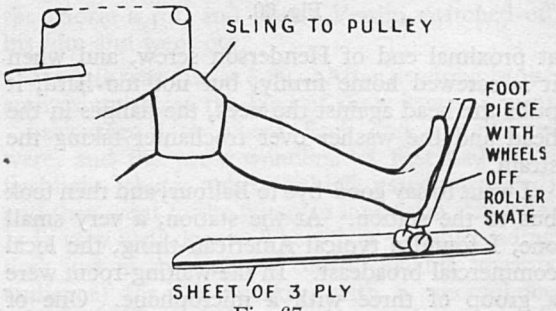

Fig. 67.

In osteoarthritic hip he is trying somebody's (? Smith Peterson's) operation. Exposure, chip-

ping osteophytes off femoral head, and cutting away anterior part of acetabulum, to allow flexion of hip and partial dislocation of head.

They have had several cases of gas gangrene following motor accidents, and give prophylactic serum. For infection they give deep X-ray before despairing.

In fractures they do a fair amount of operating, using Parham's bands, and bone grafts fixed with beef bone screws.

His great stunt is a Henderson screw for fractures of the neck of the femur, in place of the Smith Peterson pin. He reduces by plain strapping traction for a week, which he says always works, then transfers patient to a Hawley table. Reduction is checked by X-rays in two planes. He exposes trochanter and enters a Kirschner wire half an inch below transverse line at base of trochanter, and runs it up what he considers centre line of neck; having checked by X-ray, he runs wire right into acetabulum, so as to fix head. He then introduces a reamer over the wire and taps out a hole going to within a few millimeters of acetabular surface of head. He then

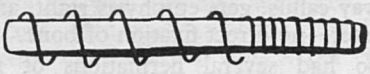

Fig. 68.

puts down his screw, a tube the size of the reamer with a wide special flange. This is held during insertion by tube with a lock nut. He then reams out hole in bone one size larger, down to end of screw, and, still over wire, introduces an outer sleeve with a nut head on which is threaded an oval washer. This engages on the fine thread

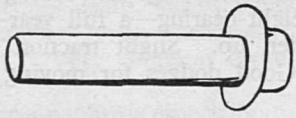

Fig. 69.

at proximal end of Henderson screw, and when it is screwed home firmly, but not too hard, it pulls the head against the neck, the flanges in the head and the washer over trochanter taking the strain.

I went to say good-bye to Balfour, and then took bus to the station. At the station, a very small one, I found a typical American thing, the local commercial broadcast. In the waiting-room were a group of three with a microphone. One of them suddenly began something like, " Ladies and Gentlemen, I am now talking to you from the waiting-room of the North Western Station, Rochester, Minnesota. We are gathered here to wait for the ' Minnesota 400,' one of the fine modern trains that this company has recently put on for the benefit of the travelling public. Everywhere around me is the hustle of departing travellers. We have with us some very interesting people, some of whom I should like you to meet." He then talked to an insurance man; they just talked naturally with the mike between them, but the commentator's questions were very cleverly put to make an interesting conversation. Then he came to me and asked me where I was from, what I thought of America, and so on. The whole goes out on a local station with a range of about a hundred miles, and is done purely to advertise the train.

The journey to Chicago, with two meals and some reading, went easily. Leaving at 12.30, arrived about 7.30. I crossed Chicago, got into the sleeper about 9.30, and after the usual excellent night with a few wakes due to jerks, arrived at St. Louis at 7.15. Coming into the town we went along the Mississippi, with multideck river steamers and a show-boat, but all laid up for the winter. The extraordinary thing arriving in any American town in the early morning is the huge number of cars that stay out all night, in the streets, in gardens, even in railway sidings.

Wednesday, October 20th

Nice room at Jefferson Hotel, booked (and paid) for me by Peck. Bath, shave and breakfast, then a walk to the auditorium, where the International Post-Graduate Assembly is being held.

The Auditorium is a very large municipal building for concerts, political meetings and so on. It contains two theatres with a continuous lobby and side-rooms all round the outside. One theatre is perfectly colossal—almost Albert Hall size, for the galleries extend above the lobbies the full width of the building. The other theatre, where the meetings are held, is smaller, with a single transverse gallery, but big enough, as the floor has nearly 2,000 seats. The two stages back on to each other, so that there is a wide " back-stage " space common to both. In this building is the most extraordinary congress you could imagine. This whole show was started by Peck with three States; it now includes all American and most Canadian States, and runs a three-months' medico-social tour of Europe each year. It was his child and is now his livelihood, and is a monument to his vision and industry. It serves the double purpose of a post-graduate meeting for practitioners and a sales organisation for surgeons and hospitals. Sessions start every

morning at 8 a.m. From about 9.30 to 11 there is a break to look at exhibits, and another from 2.30 to 4, and there are breaks at 12 and 6 for meals. Otherwise the show goes on continuously from 8 a.m. to 10 p.m. Every half-hour a fresh speaker is announced, comes on, and does his stuff. And very clever stuff it is. They alternate surgeons, physicians and specialists of all sorts, so that there is no lumping of material of any kind that would allow a man to hear what he is interested in and go away for a rest. The old boys just sit through it. I don't believe they listen to much or take any notes, but they do their duty and get their 5 dollars' worth. The sort of stuff given is frightfully clever—another year I could do it much better. The great thing is a cheery, man-to-man, all-scientists-together, delighted-to-discuss-my-difficulties-with-you, excuse-my-lack of-formal-preparation sort of talk; actually the effect is to give the old boy from the backwoods an idea that he is being let into the latest secrets of science, but to describe them with just sufficient lack of detail and to lay so much emphasis, by the way merely, on the horrible snags that may await the unskilful, that he will think of this treatment when he next sees a case, but will send it after all to the " Smith " Clinic, the " Jones " Clinic, the " Brown " Clinic, the " Robinson " Clinic, or any of the hundred one-man shows that send their best salesmen here. A great stunt is the " diagnostic clinic," supposed to be an examination and diagnosis of patients. A few cases are picked from the local hospital, and brought on the stage, but the great man has rarely seen them before or bothered to look at their notes. He places them rather self-consciously in the lime-light and, after patting them on the back, and holding an X-ray he has never seen before upside down, he sends them out and gets ahead with his high-pressure sales talk. A. B. this morning gave a really masterly one on bile-duct obstruction. He got rid of his patient in the first round by saying he did not want to discuss the difficulties of her operation in front of her. Then he stood up and gave a wonderful talk, apparently straight out of his head, yet twice he stopped and had to go to a paper, and I believe the whole thing was memorised.

But outside is even more marvellous. The whole long arena, the lobbies and the side-rooms are given over to exhibits, much as the medical exhibition in London. But sandwiched in between the trade exhibits are exhibits from all the Clinics and Universities and from individual surgeons with doctors in attendance. Reprints are set out on stands marked " Please take one." One surgeon has a chat about the prostate, and he had a row of twenty models in boxes, to show what different prostates felt like, with microscopic slides above. You saw the very funny sight of a row of old backwoods doctors going round and poking their fingers into rubber rectum after rubber rectum with a faraway look in their eyes. The wax model is another great thing. One surgeon has a row of tracheas and œsophaguses with thyroid on them, turning round under light like hairdressers' models, to show the dangers of operation. The Mayo Clinic have a wonderful exhibit of first-class educative value, in which wax models, cinemas and X-rays are all used to show, chiefly, fractures, and adrenal tumours with secondary sex changes.

All this is not nearly as commercial as it sounds, but there are humorous sidelights. A demonstrator on the Parke Davis stand whom I had met before, came up and whispered that I ought to hurry along to Room C if I did not want to miss a good show. Room C was a large annexe divided between the " Verdin " Clinic and the " Rubin " Clinic. At ordinary times the exhibits would be in the hands of technicians or interns, but on this afternoon both Verdin and Rubin were themselves present, and were each showing a film, the first of goitre operations, the second of colectomy. The lights were out and each was just visible as he talked, passing from explanation to sales talk and from sales talk to oratory. Little Billy Rubin was magnificent. He was pouring out a flood of eloquence about our duties to humanity, and about the great care he took to choose none but the most experienced doctors to give the anæsthetics at his clinic (a dig at the nurse-anæsthetists of the Verdin Clinic). Those in the last row of the Verdin audience were now listening out of the backs of their heads. Rubin got better and better as his film went on, and when one or two Verdin supporters sneaked across the room on tip-toe, the light of battle shone in his eyes and he was spurred to fresh flights of Hibernian imagery. The deserters became a steady trickle, the trickle a rot, and finally Verdin switched off his film and went out.

My talk was due at 3.30. After listening in the auditorium to see the kind of show it was, I went " back-stage " to where Peck and his officers were, and the press wonders. I first had some flashlight photos taken (which never appeared) and then went to the wings to look from that side. It is very well done. There is a well-lit reading desk just to the right of centre (looking towards audience) for the speaker, with a microphone adjustable for height. Another microphone is placed where he stands in front of the screen, a third by the patient's couch. To his right is a

table with a shorthand stenographer and an officer of the Association, who acts as announcer and timekeeper. Further to the right is a technician with a loud-speaker by him, who tunes the reproduction up and down and works the lights.

Peck decided I was better the next day, when Will Mayo was falling out, so he put a harp solo in my place and I had a rest.

At 6 we had to meet, dressed, in the Jefferson, and went across to the National Studio to broadcast; then another broadcast in the Jefferson on the Columbia network. It was the same sort of thing as on the station at Rochester.

The Association dinner followed. This was due at 7 p.m., and all the rank and file were there. But a lot of the big shots at our table were late, and it was about 7.45 when we started dinner. During the wait men smoked pipes or enormous cigars, and nibbled celery. At the dinner I was next to Ewarts Graham, whom I wanted to meet. Afterwards there was a presentation to Crile, with speeches, and speeches from everybody. I was eighth, and quite put off by the lateness of the hour and the feeling of surfeit. Still a few speeches are nothing to people who are prepared to sit for fourteen hours at lectures, and they really wanted more. I only wished I had been prepared to be light, for Hunt, of Mary's, just before me, was the success of the evening with a few very casual remarks and a few very simple stories.

(To be continued.)

Complete Congenital Non-Rotation of the Gut:

AN UNUSUAL CASE, ITS EMBRYOLOGY AND PATHOLOGICAL SEQUELÆ

By D. M. F. Carter, Esq.

THE following case is of interest on account of the unusual findings and pathology at operation.

A female patient, aged 30, was sent up by her doctor as a case of intestinal obstruction. She was admitted at 12.30 a.m. into Lydia on the 18th of August. The following history was obtained. She was married and had had two normal pregnancies; she had vomited during the first three months of these. At the time of admission she was four to five months pregnant and had vomited as usual during the first three months. She was otherwise fit and had had no illnesses of note. On the morning of the 17th of August, she experienced a dull ache, generalised over the whole abdomen; this came on gradually and slowly increased in severity throughout the day. She opened her bowels that morning. Towards evening she had very severe attacks of colicky pain coming on every five or ten minutes and lasting about one minute. She felt very weak and sweated profusely. In addition, she began to vomit—she had done this about six times. Her doctor had given her one-third of a grain of morphia, but her pain was still severe.

On admission, the pulse was 110 and weak, temperature, 98.4°, respirations 20. Inspection of the abdomen showed a symmetrical distension of its central part, no distension in the flanks, no visible peristalsis. On palpation there was no regidity, but marked guarding and tenderness over the whole abdomen. There was no point of maximum tenderness. No sounds could be heard with the stethoscope. Rectal examination revealed nothing abnormal. The urine was normal. After admission she was given an enema with a good result, after half an hour another enema gave a little flatus. The following possibilities were considered: acute appendicitis, volvulus, acute cholycystitis, twisted ovarian cyst, hyperemesis gravidarum, pyelitis. The diagnosis was always in doubt, but in view of the rising pulse rate and persistent abdominal signs, it was considered essential to operate. Mr. Gill performed the following operation:—

Anæsthesia—gas, oxygen and ether.

Incision, right para-median. On opening the peritoneum, the cæcum could not be located in the right iliac fossa; a large piece of the colon, apparently transverse, was seen presenting at the upper part of the incision. This piece of colon was pulled down and was found to be a greatly distended cæcum. On further examination, the whole of the colon was found lying down the left side of the abdomen, and attached to the posterior abdominal wall by a long and lax mesentery, as far as the descending colon, which lay on the posterior abdominal wall in its usual position. The first part of the colon and the terminal ileum were discovered twisted round each other for two complete turns, leaving the cæcum and terminal ileum as a distended loop; it was this distended loop which was at first thought to be transverse colon. The duodenum was inspected and was found to have a mesentery which was continuous with that of the rest of the small intestine. It

was therefore a case of cæcal volvulus in a patient with a complete congenital non-rotation of the gut.

After the volvulus was untwisted, although the cæcum was still viable, it was thought to be unsafe to leave this dilated piece of gut attached to so great a length of mesentery, thus rendering a recurrence extremely probable, therefore a side-to-side anastomosis was made between the ileum above the volvulus to the colon below the volvulus. The mesentery of the volvulus was then cut away, while the volvulus itself, consisting of cæcum and three inches of terminal ileum, was exteriorised. The abdomen was then closed and the patient returned to bed.

The next day the pulse was 120, temperature 99°. An intravenous drip was put up, and 18 hours after the operation the exteriorised loop of bowel was cut away with the cautery, the large intestine being tied off and returned to the abdomen. An ileostomy tube was put in the ileal portion; this drained slightly for two days. It was then removed and the ileum tied off and returned also into the abdominal cavity. A slight fæcal fistula is still persisting, but this is apparently clearing of itself. The pregnancy was unaffected.

Although minor degrees of displacement of the cæcum, such as non-descent into the right iliac fossa or abnormal position due to excessive length of the cæcal or colonic mesentery, are comparatively common, left-sided cæcum due to complete congenital non-rotation of the gut is very rare; left-sided cæcum due to transposition of the viscera is commoner, but must not be confused with non-rotation. Reversed rotation in a direction opposite to the normal is excessively rare. A consideration of the stages in the development of the normal anatomical relationships of the gut explains in what way these conditions of non-, partial, or reversed rotation of the gut occur, and serves also to explain the condition to which these people with such abnormalities are so liable, namely volvulus. Although some may go through life untroubled with this condition, few survive more than the first few days, the abnormality perhaps even going unrecognised, the symptoms of vomiting being ascribed to pyloric stenosis or duodenal atresia.

The normal development is as follows: At the fifth week the alimentary canal, suspended by the dorsal mesentery, consists of fore, mid and hind guts, supplied by the cœliac, superior and inferior mesenteric arteries respectively. The mid-gut, with which we are here concerned, stretches from the ampulla of Vater to that point of the intestine which will be splenic flexure, the descending and pelvic colon being derived from hind gut. By unequal growth of the sides of the stomach, the duodenum is deviated to the right and becomes fixed to the posterior abdominal wall just to the right of the median plane, that is the normal adult position; the hind gut (pelvic colon) also becomes secondarily attached to the posterior abdominal wall to the left of the median plane. Thus gradually, by unequal growth, the two extremities of the mid-gut loop become approximated, that is to say, the duodenum to the right of the mid-line is very close to that point of the gut which will be splenic flexure on the left; this last point is known as the "colic angle." In this way the mid-gut is attached at each end to points which are very close to each other to form a narrow isthmus, the "duodeno-colic isthmus," the mid-gut itself hanging down in the form of a U-loop from these two points, the proximal limb (small intestine) hanging down from the duodenum and to the right, the distal limb (large intestine) going up to the "colic angle" and to the left. (Fig. 1.) The

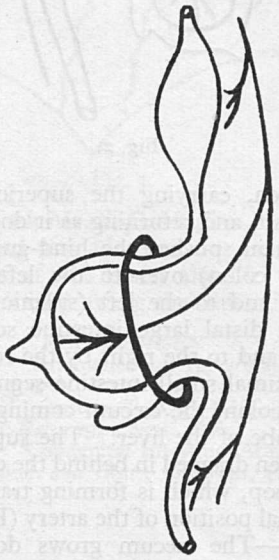

Fig. 1.

superior mesenteric artery supplies this loop. From now on rotation can be described as taking place in three stages:—

Stage 1.—The liver is increasing in size and its right lobe tends to push the proximal limb of the mid-gut loop behind the distal limb (direction of arrow, Fig. 2). At the same time the whole mid-gut loop is herniated through the umbilical orifice.

Stage 2.—As it is impossible for the hernia to return *en masse* into the abdomen, one or other segment of the U-shaped mid-gut loop must return first. Normally this is the small intestine segment

or proximal limb of the loop; this segment already pushed by the liver behind the distal large intestine segment (stage 1) returns first into

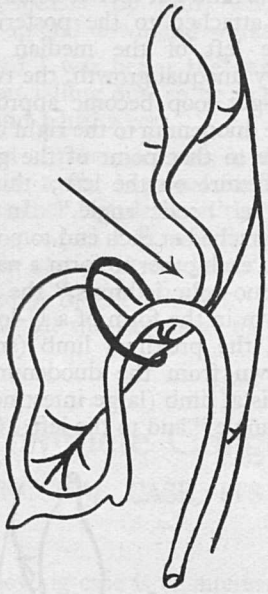

Fig. 2.

the abdomen, carrying the superior mesenteric artery with it, and returning as it does behind the distal segment, pushes the hind-gut (descending and pelvic colon) over to the left, the "colic angle" up and to the left (splenic flexure), the rest of the distal large intestine segment being pushed up and to the right by the returning coils of the proximal small intestine segment, to form transverse colon, the cæcum coming to lie below the right lobe of the liver. The superior mesenteric has been dragged in behind the distal segment of the U-loop, which is forming transverse colon —the normal position of the artery (Figs. 3 and 4).

Stage 3.—The cæcum grows down into the right iliac fossa.

The following abnormalities in this process of rotation may occur, of which non-descent of the cæcum from its sub-hepatic position to the right iliac fossa is the most common. Next in order of frequency is complete non-rotation of the whole mid-gut loop. In this condition the large intestine or distal limb of the mid-gut loop has returned first into the abdomen, so that the whole of the colon lies coiled up on the left side of the abdomen, having been pushed over into that position by the small intestine, which returns last and occupies the right-hand side. It was this abnormality which was found at the operation described above. Usually these displaced viscera undergo a great deal of secondary mesenteric adhesion, the cæcum tending to remain free and mobile. No secondary attachments may, however, be made, in which case the whole of the small and part of the large intestines up to the splenic flexure are hung from the posterior abdominal wall by the "duodeno-colic isthmus," in which case volvulus of the whole gut round this isthmus may, and generally does, occur, usually within the first few days of life. The last possibility is reversed rotation of the mid-gut loop; this is very rare indeed. In this condition it is the distal limb of the U-loop which has become rotated behind the proximal instead of *vice versa*; the superior mesenteric artery thus comes to lie in front of, instead of behind, the transverse colon.

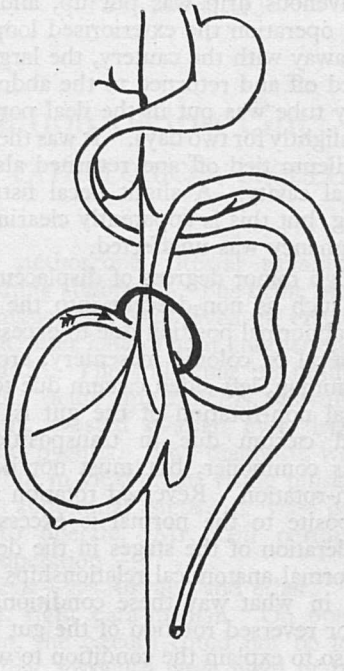

Fig. 3.

The chief importance of these abnormalities lies in the fact that they should be recognised and understood at operation. The three points—absence of the cæcum in the right iliac fossa, no transverse colon, many coils of large gut lying parallel to the descending and pelvic colon—are generally sufficient to give away the condition.

The pathological sequelæ that commonly occur are: In infants, rotation round the "duodeno-colic isthmus," with volvulus of the whole gut leading to obstruction, sometimes partial, which clinically is nearly always mistaken for pyloric or duodenal atresia. In adults, when secondary mesenteric adhesions have occurred, volvulus of the ileo-cæcal region—as in this case.

Lesions extrinsic to the actual abnormality, such as acute appendicitis, are very confusing, but are sometimes diagnosed in young people, where

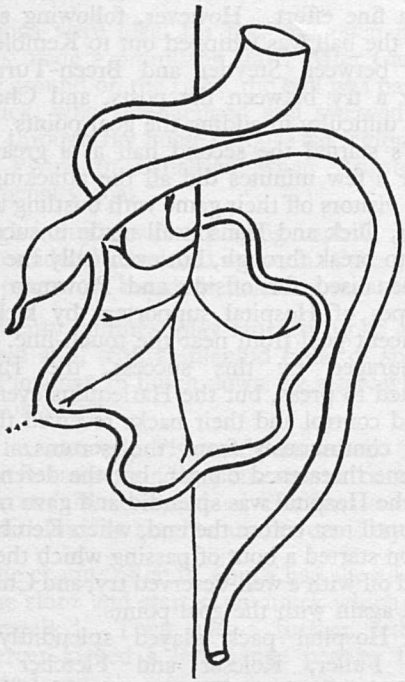

Fig. 4.

diverticulitis is rendered unlikely. The colon may sometimes be percussed over the left flank, but not over the right, which may be a help in diagnosis, but X-ray remains the only absolute method of proving the condition. Coils of large intestine lying parallel to the descending and pelvic colons after barium enema being diagnostic. Recognition of the condition at operation and its consideration in obscure left-sided pain are the only claims to fame, in an abnormality which is one more of unusual interest than of great practical importance.

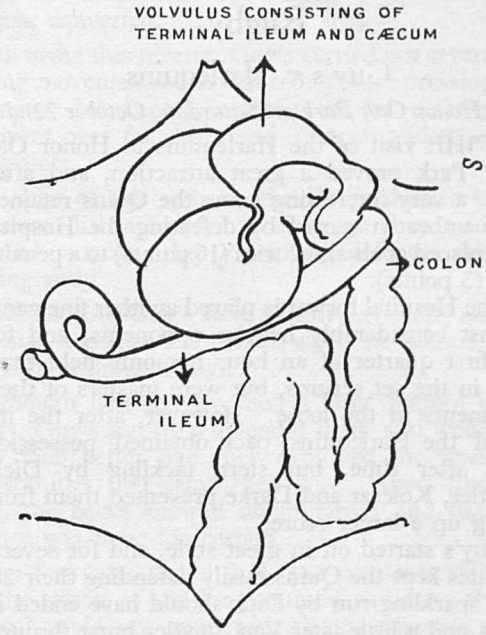

Fig. 5.

I wish to thank Mr. E. C. Hughes, under whose care this patient was admitted, for permission to print the notes of this case; also Mr. C. K. Cole for his kindness in drawing the illustrations.

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Correspondence

Kenya Colony

To the Editor of the GAZETTE

SIR,—If any Nursing News is published in the *Gazette*, I thought perhaps the following might interest you.

There are in this Colony about eighteen Guy's nurses, working and retired, and at a meeting held in Nairobi on October 11th it was decided to form a Kenya Branch of the Guy's Hospital Nurses' League, the chief objects of which are to assist Guy's nurses to get to know each other and keep in touch, to welcome new arrivals, and to offer hospitality and help to any members in trouble or in cases of illness, etc. A meeting is to be held annually in Nairobi.

As far as I can find out, there are no Guy's medical men in Kenya (there are three dental men in Nairobi), but if you know of any coming out here who would like any information as to the conditions I should be pleased to do anything I can to help.

Yours, etc.,
(Mrs.) R. S. RITCHIE,
Hon. Sec., Kenya Branch,
Guy's Hospital Nurses' League.

P.O. Box 21,
Rinsu,
Kenya Colony.

Sport

Rugby

Guy's v. Harlequins

(*At Honor Oak Park on Saturday, October 22nd.*)

THE visit of the Harlequins to Honor Oak Park proved a great attraction, and after a very interesting game the Quins retained their unbeaten record by defeating the Hospital by 2 placed goals and 2 tries (16 points) to a penalty goal (3 points).

The Hospital forwards played another fine game against considerably heavier opponents, and for the first quarter of an hour not only held their own in the set scrums, but were masters of their opponents in the loose. However, after the interval the Harlequins' pack obtained possession time after time, but stern tackling by Dick, Steytler, Kolesar and Darke prevented them from piling up a larger score.

Guy's started off in great style, and for several minutes kept the Quins busily defending their 25. One sparkling run by Dick should have ended in a try, and a little later Van Steytler burst through the centre and just as he was about to round the full-back he was overtaken by Kemble and grassed with the line before him.

A little later Dick found another opening and, after drawing the defence, cross-kicked to the left, where there were at least three Hospital forwards waiting for the ball, and only the full-back separating them from the goal-line, but they all failed to gather the ball and a fine opportunity to open the scoring went astray.

After this escape the Quins gradually drove Guy's back to their own territory, and immediately they reached the Hospital's 25 they were awarded a penalty for a scrum infringement, and Chapman placed a goal from an easy position.

A little later the visitors increased their lead when Guy's were penalised again, and Chapman landed another goal.

It was hard luck on the Hospital to find themselves six points in arrears after enjoying so much of the game. However, they stuck to their task and Hanson, after a magnificent run on the left, eluded Daly, the Irish International, and was going hard for the line when Tilling, the full-back, pushed him into touch near the corner flag.

The Harlequin forwards carried out another raid and started a movement which led to a try scored by Kemble. Forwards and backs participated in a grand bout of passing, which carried play to the Hospital's 25, when a forward pass spoilt a fine effort. However, following a loose scrum, the ball was whipped out to Kemble, who flashed between Steytler and Breen-Turner to register a try between the posts, and Chapman had no difficulty in adding the goal points.

Guy's started the second half at a great pace and for a few minutes did all the attacking, and put the visitors off their game with bustling tactics. Steytler, Dick and Hanson all made unsuccessful efforts to break through, but eventually the Quins were penalised for offside and Plowman raised the hopes of Hospital supporters by kicking a magnificent goal from near the touch-line.

Encouraged by this success, the Hospital continued to press, but the Harlequins eventually assumed control and their backs received the ball almost continuously from the scrums. Time after time threatened danger, but the defence put up by the Hospital was splendid and gave nothing away, until just before the end, when Kemble and Crichton started a bout of passing which the latter finished off with a well-deserved try, and Chapman obliged again with the goal points.

The Hospital pack played splendidly with Darke, Fuller, Kolesar and Fletcher being particularly effective. The threes had few chances, but their defence was excellent. Plowman at full-back played his best game of the season, fielding safely and kicking a good length.

Team.—R. D. Plowman; R. F. Camp, J. S. Breen-Turner, R. C. S. Dick, J. M. Hanson; J. van A. Steytler, T. H. Eustace; D. H. Fuller, R. M. Sharpe, C. C. Vidot, A. Forbes, P. Fletcher, C. S. Darke, G. Morris, P. D'O. Kolesar.

Guy's v. Plymouth Albion

(*At Plymouth on Saturday, October 29th.*)

AFTER taking the lead at the end of five minutes' play, Guy's fell away in the second half and were defeated by 2 placed goals, 2 penalty goals and 2 tries (22 points), to a penalty goal and a try (6 points).

Plymouth have a strong side this season and undoubtedly one of the best in the West Country; they have a heavy pack of forwards and a promising back division, including Warne, regarded as one of the best centres in the country, and Hurden, a particularly fast wing.

Unfortunately, injuries and examinations prevented several regular members of the team from making the journey. However, the opportunity was taken to try out one or two players who had

shown promise with the "A" Fifteen, including P. C. Gartrell, a fly-half, who was awarded his cap for Cornwall a week ago, and T. W. Renton, a back-row forward.

Conditions were ideal for fast and open play and Guy's made a promising start. After Camps had made ground on the right, the ball was passed out to Dick, who side-stepped and swerved his way right through the home defence for a glorious try, but Plymouth equalised when Brigstocke landed a penalty goal.

Although Guy's were playing uphill, they handled confidently, and had as much of the game as their opponents, but their finishing was poor.

After twenty minutes' play Hurden broke away in mid-field and, with a splendid burst of speed, rounded Plowman to touch down for a try, which was not converted.

Near the interval, Plymouth increased their lead when a smart handling movement between Garmston and Mercer enabled Hurden to cross the Hospital line for another unconverted try.

After the change of ends, Guy's had the advantage of the slope and started an attack which was quickly repelled. They had a further setback when Mercer kicked a long-range penalty from over 40 yards out.

In spite of Darke's splendid leadership, Guy's could not get going, and, although the backs saw plenty of the ball, they appeared anxious to get rid of it, without making any headway.

Eventually the Albion forwards gained the upper hand and forced a scrum in the Hospital's 25. The ball was heeled quickly and Nicholas slipped round the blind side and scored a try, which Thomas converted.

Following this reverse, Guy's carried out several passing movements, and when they were pressing, Garmston intercepted, outstripped the defence, and went over for a try, and Thomas added the goal points.

In spite of this setback, the Hospital were by no means disheartened, but, although they made repeated attacks, the Plymouth defence gave nothing away.

Near the end Guy's were awarded a penalty and Plowman reduced the deficit when he landed a goal from a difficult angle.

Although defeated by such a large margin of points, Guy's put up a splendid fight, and would have done better had they exploited the many opportunities that came their way. Apart from Dick, the backs showed no initiative, and their defence was none too certain.

The forwards started well, but no doubt they felt the effects of the long journey and after the interval could not cope with the hammering to which they were subjected.

Team.—R. D. Plowman; R. F. Camps, J. S. Breen-Turner, R. C. S. Dick, J. M. Hanson; P. C. Gartrell, T. H. Eustace; D. N. Fuller, A. J. Drew, C. C. Vidot, J. C. Bulstrode, P. Fletcher, C. S. Darke, T. W. Renton, G. Morris.

Hospital Information, etc.

Notices

THE SIR ALFRED FRIPP MEMORIAL FELLOWSHIP IN CHILD PSYCHOLOGY

Applications are invited for the above Fellowship, which is of the value of £300 per annum and is tenable for a period of two years.

The Fellowship has been established with the object of promoting the advancement of knowledge and research in Psychology, more particularly through the study of children in health and/or in disease. Each candidate must submit with his or her application a definite scheme of advanced study or research work to be carried out during the tenure of the Fellowship, together with particulars of his, or her, previous career. The investigations undertaken by the Fellow shall be carried out in the Children's Department of Guy's Hospital.

Men and women are eligible for the Fellowship. Candidates must be unmarried, of not more than thirty years of age, and must possess a registrable qualification to practise medicine. Canvassing will be regarded as a disqualification.

Further particulars as to the regulations governing the Fellowship may be obtained from the Dean, Guy's Hospital Medical School, S.E.1, with whom applications (ten copies), together with the names of three referees, should be lodged not later than November 30th, 1938.

T. J. EVANS,
Dean.

MEDICAL SCHOOL
SECOND M.D. LONDON EXAMINATION

All students who commenced the study of Anatomy and Physiology during the present term are reminded that they are required to take the

2nd M.B. London Examination under the new regulations and are not eligible to take the 2nd M.B. London Examination (Part I) under the old regulations.

The 2nd M.B. London Examinations (Part I) to be held during the year 1939 are arranged for students who have already sat for and have been referred in this Examination.

The course of study for the 2nd M.B. London Examination under the new regulations will be posted shortly.

Nursing News

THERE will be a Sale of Work and Entertainment in the Nurses' Home on Wednesday, November 16th.

The sale will be opened by Lady Rhys Williams at 3 p.m. The stalls will contain useful and attractive articles and such things as will be specially useful for Christmas presents. Please come and buy.

The side-shows and entertainment are to be particularly good, catering for all tastes. Delicious tea. The Hospital will be open to visitors.

The event is in aid of the Cosmo Bonsor Memorial Scholarship Fund, which is being raised to award to a Guy's nurse annually for post-graduate nursing education.

Pass List

UNIVERSITY OF CAMBRIDGE.
M.B., B.Ch.
Michaelmas Term, 1938.

Pharmacology.

J. V. Braithwaite
J. P. Bull
F. M. P. Eckstein
J. G. Matthewson

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.
October, 1938.

Surgery.
E. S. Nicholson.

Medicine.
R. Rowlandson.

Forensic Medicine.
R. Rowlandson.

Midwifery.
D. B. Roberts.

CONJOINT BOARD.
FINAL EXAMINATION.
October, 1938.

Pathology.

P. H. Beales
P. H. Birks
J. A. Bowen-Jones
H. P. Brown
B. Levin
G. J. Parfitt
E. M. Poulton
*R. F. Pusey
C. K. Cole
A. J. Drew
M. F. Hart
C. F. Hawkins
W. J. I. Howard
J. A. Jones
W. A. Jones
W. C. Lawrence
D. B. Seymour-Price
M. A. Shellim
I. M. G. Stewart
G. N. J. Thomas
H. D. Venning
H. J. Voss
J. A. Yates

Medicine.

*A. W. J. Craft
*E. I. Davis
J. M. French
*R. F. E. Harrington
W. R. L. Harrison
*J. W. S. Harvey
*R. O. Holland
A. C. C. Hughes
*H. Jackson
*T. R. Jones
O. G. Lane
K. S. MacLean
*F. J. C. Matthews
*R. F. Pusey
W. A. de C. Shearman
L. E. Smith
*A. R. F. Thompson
*E. R. Hodgson Todd
G. S. Wigley

Surgery.

*J. F. Buckmaster
C. H. J. Rey
*J. B. Franklin
*R. J. Healey
R. E. Horton
D. A. H. Johnson
*T. R. Jones
C. W. Kesson
N. L. McNeil
D. E. Meredith
C. M. Norman
E. M. Poulton
T. M. L. Price
C. P. F. Quinnell
*M. O. Richardson
R. G. Robinson
D. Stafford-Clark
*E. R. Hodgson Todd
D. Tumrasian
E. Williams
E. H. Williams

Midwifery.

P. H. Beales
C. K. Cole
C. A. G. Cook
P. Forgacs
W. E. Greenwood
M. F. Hart
C. F. Hawkins
W. J. T. Howard
H. Kanter
C. W. Kesson
A. H. Knight
B. Levin
G. J. F. Rees
*M. O. Richardson
I. M. G. Stewart
H. D. Venning
W. R. D. Wiggins
J. N. Williams
J. A. Yates

* Have completed the examination.

Papers by Guy's Men

Lloyd, V. E. Sulphonamide compounds in chemotherapy. *J. Clin. Res.*, 1938, xxiv, 129.

Bowen-Davies, A. The paranasal sinuses of children. *Proc. Roy. Soc. Med.*, 1938, xxxi, 1411 (Sect. Laryng. Otol.).

Barber, H. W. (1) Hæmochromatosis in a woman; (2) Schamberg's progressive pigmentary dermatosis; (3) Pustular psoriasis. *Ibid.*, 1352-1353 (Sect. Derm.).

Forman, Louis. Lichen planus confined to one side of the body and in a segmental distribution. *Ibid.*, 1356.

Dowling, G. B. Two cases of dermatomyositis. *Ibid.*, 1357.

Changes of Address

Dr. M. B. M. Tweed, c/o The Devonshire Club, St. James' Street, W.1.

Eds. { C.H.E. W.E.Y.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume LII — 19*th November* 1938 — *Number* 1313

PASSIM

SINCE it has always been the boast of Guy's that the students here are the victims of less spoon-feeding than at any other hospital, we were perhaps only partially stating the case when we inveighed in our last issue against the overcrowding of students with its accompanying confusion and decrease in the facilities for getting oneself taught. It was only partially stating the case in that we failed to point out that for all the faults that are to be found with the present system, there still remains at this Hospital more than at any other ample opportunity of teaching oneself. It might be thought from what we had to say that, try as he might to find something to do, the keen ward clerk found himself baulked at every turning as someone else was there first, that people tended to lose interest because, however willing they were to undertake any or every small job going, there were always others whose claim was greater, either because they were there first or, more unusually, because it was their case. Astonishing as it may seem, it is quite misleading to imagine that this is the state of affairs. It would appear that as the number of students gets larger the desire to take an active participation in the treatment of one's patient gets smaller. The more people there are on a firm the more the little odd things tend to be left to somebody else, the longer they get put off to a later date. In a few breasts we shall provoke considerable resentment, but we are sorry to feel that these cases will be few in number.

To explain further what we mean, we may point out that almost every day one of those minor, but supremely important, operations of putting up a drip, transfusing blood, tapping a chest or an abdomen, refilling an artificial pneumothorax is done, but only rarely does the clerk or dresser whose case it is make it his duty to attend the operation, to learn the technique, to discuss with the houseman the indications that have led him to do whatever he has decided to do. One has not, we believe, to be gifted with second sight to realise that the less one misses the opportunities of *personal* contact with practical treatment the more intimate becomes one's knowledge and understanding of disease. There is, of course, nothing new in anything of what we have just said, but we are certain that the general tendency is to avoid those contacts and that this tendency grows greater every day, and that the student has only himself to blame for throwing away many a valuable experience. This disinterestedness is not limited to those details that we have listed above, but extends also to many other points in diagnosis and treatment. It is a rapidly dying practice for clerks to watch the radiological investigations of their patients, it is an uncommon practice for them to titrate their own test-meals or investigate the urine microscopically; in fact it will probably not be long before it is the custom to wait to be asked to test the urine, take the blood pressure or estimate the hæmoglobin.

Can we find any particular excuse for this tendency? Most minor operations are performed after 5 o'clock in the evening for reasons of convenience to the ward and the houseman. This time, unfortunately, appears to interfere with the habits of the dressers or clerks, or so it seems, because students in the wards after tea are rare birds. Are there, perhaps, so many lectures (in parenthesis we may mention that we have heard complaints that nurses now have so many lectures that they have no time to learn nursing!) that

they interfere with voluntary late afternoon work? To a certain extent this is probably so, but it may be pointed out that there are after all fewer chests (for example) to be tapped than lectures to attend, so that it is probably a greater loss to miss the chest, which must of necessity be more interesting than the lecture; probably, too, there will be more to retain in the mind from that chest than from a hundred bottles in the Gordon Muesum. Of course, there is always the bugbear of getting signed up, but it should not be difficult judiciously to divide up one's time so that one may now and then indulge in the pleasure of cutting a lecture to look, to take another example, into the living stomach through a gastroscope. But there are a host of other reasons why one misses a lot of things, most often, we suppose, it just does not occur to one, and second most often, one cannot at that moment be bothered.

It is clear that the teaching staff is not solely responsible for making medicine into a purely theoretical subject, the student himself cannot justifiably complain so long as he wilfully neglects those quite numerous chances that are left for him to take.

THERE are certain signs in the air by which the initiated can recognise that in the not very distant future Christmas will be here. For many a generation the outstanding feature of this feast at Guy's has been the hilarious, if ignoble, musical performance of the Residents in their traditional disguise as Niggers. As usual, there has for many weeks been a grumbling, low-grade discussion as to whether the "Niggers" are again this year to produce their outrageous entertainment, which at the time they revel in, but before resent and afterwards regret. Until now the tradition has not been broken, but there has never yet been brought forward any good reason why they should continue. It has always been admitted that there are innumerable better ways of spending Christmas than getting more than somewhat intoxicated in order not to be ashamed of disporting oneself in a way that would be inconceivable in sober moments. It is our opinion that the "Niggers" ought to go, and go for good. In a year or two they would be regarded as a barbaric relic, or perhaps, more kindly, as a quaint old custom that has had to bow to advancing civilisation. Whether or not this is the opinion of our readers we do not know, but when the Residents meet to consider the fate of the "Niggers" we beg them to take the view that the Hospital has not for many years been spared them, and that it would at least be of value to discover how it would get on without them. The Residents, when all things are considered, have nothing to lose, except a sentimental attachment of which they have no great reason to be proud.

A SERVICE was held at the Memorial Gates on Armistice Day, 1938. Mr. Ogilvie spoke these words:—

"It sometimes appears that the dead are forgotten by all but their immediate contemporaries, that the monuments set up to keep their memory green become, to succeeding generations, no more than landmarks dissociated from their former purpose. We have not forgotten the Guy's men whose names are written on this Arch, and it is but a few short weeks since we all passed through a period of stress that served to renew their memory. I shall never forget the faces and the voices of the men and women with whom I mingled and to whom I talked on that last Wednesday in the September that is just past. There was no foolish racial pride, no rush to adventure, no hatred of any man; rather a solemn realisation of the difficulties, the dangers, even the horrors that then seemed inevitable, and a determination to meet them courageously, since right seemed to point that way. I felt proud that these were my countrymen; I felt thankful that this spirit, which is a new spirit, was handed on by those whose names we see before us; and I was glad that you, who never knew war, can henceforth appreciate from your own experience the pure and humble motives that took these men from Guy's to Flanders.

"On these columns are the names of my house surgeon, for whom I dressed and with whom I served many take-ins, two of my fellow externs, many who were my personal friends through my student years. They were young then, and strong, and brave, and the future was just opening before them with visions of marriage, and travel, and practice. They went gladly and they died cheerfully. In deep thankfulness for their memory, and in the name of the men and women of Guy's, I place this wreath on their memorial."

WE are proud to be able to congratulate a member of the Honorary Staff of this Hospital on a most uncommon and important honour that has been bestowed upon him. Mr. W. H. Ogilvie attended last month in New York the annual meeting of the American College of Surgeons to receive an Honorary Fellowship of that body. This is a distinction that has been offered to few Englishmen, Sir Arbuthnot Lane being the last Guy's surgeon to hold it. The gesture is a mark of the respect in which Mr. Ogilvie is held in the United States, and we congratulate him not on a purely personal honour, but on one which is shared with him by Guy's Hospital as a whole.

The Prosthetic Side of Dental Practice

The Presidential Address to the Dental Society by Professor H. B. Fenn

GENTLEMEN,—I want, if I can, to present dental prosthetics in a more attractive light than the usual one.

The general attitude towards the mechanical side of dentistry seems always to have been that, whilst it is a necessity, since it brings in more than 50 per cent. of the income of the average practice, it is at the same time something rather unworthy of a dental surgeon.

It is easy to understand some of the causes of this attitude. We have evolved some way towards becoming a specialised branch of medicine, and naturally feel that it is the diagnostic and surgical side of our work which binds us most closely to the parent profession, whilst the mechanical side tends to reduce us, if it is a reduction, from professional men to mere craftsmen.

Again, the majority of students look on anatomy, physiology and mechanics as examinations to be passed before starting the really important part of their work. They admit that some knowledge of dental mechanics is desirable and that it is probably a useful way of acquiring dexterity, but, with the possible exception of alveolectomy, there is still little real interest in prosthetics.

Possibly also the dental curriculum has, up to the present, contributed to this attitude towards prosthetics by confining the subject to the first two years.

Whatever the causes, it is a pity that this mental attitude has arisen. We are craftsmen and should surely be no more ashamed of the fact than the orthopædic surgeon who takes a pride in designing, constructing and fitting his various forms of mechanical apparatus.

On the other hand, there is every reason why we should devote particular care and attention to this branch of our practice. The layman is apt to judge us, in the main, by two things. First, our ability to extract teeth painlessly and completely, and second, by our ability to construct comfortable, efficient and æsthetically pleasing dentures.

To the layman one filling is just like another, except that different materials are different colours, and he is quite incapable of appreciating a perfect gold inlay for example; if a filling does not drop out within the first few weeks he forgets all about it. If he has a painful or nerve-racking time with extractions, he is all too apt to put it down to lack of skill on the part of the operator. Even people who are as a rule very non-observant will notice a change in their personal appearance, though they may not be able to point out in what way it is changed. We all get patients who come back to us a few weeks after we have made them dentures with a complaint like this: "I'm awfully sorry to come bothering you about these teeth. They are quite comfortable now and I am learning to eat most things, but they don't look like me. I don't know what is wrong with them, the colour and the shape seem to be very like my own teeth, but there's just something about them which completely alters my appearance." So we just start off all over again.

Sitting in a bus or tube one is appalled by the extremely artificial-looking dentures which one sees all around, and there is no reason whatever why we should add to their number. Most porcelain workers find the making of jacket crowns a fascinating operation, and yet this work is confined to variations in form and colour, practically no variation in position being possible. In denture construction we can have all the fun of adding to or grinding from a stock form, staining and altering shade, together with a large choice of positions for each individual tooth. It is no misstatement of fact to say that prosthetic work gives a much larger scope for really artistic work than any other branch of dental surgery. Comparatively few operators avail themselves of this opportunity of developing their artistic skill, being, for the most part, content to use the forms and shades turned out by the manufacturers.

In another direction also prosthetic work calls for individual artistic skill, and that is in the restoration of facial contour. Many patients, men as well as women, when rendered edentulous will bring photographs of themselves taken some twenty years previously with the desire to have their youthful contours restored. We cannot work miracles in the way of "face-lifting," but it is surprising how much can be done with judicious moulding of the bulk of the dentures.

May I illustrate this with a case I made about a year ago. Those of you who saw it will certainly remember. The patient was a lady, an artist, who earned a rather precarious livelihood by sculpture. At the "try-in" stage she made some very useful suggestions with regard to the shape and shade we had chosen, and when we had made the suggested alterations I persuaded her to take the dentures home, still only set-up in wax, with a few instructions on how to soften the

wax, move the teeth, not to bite hard, not to eat with them, and not to keep them in too long, etc. At the next visit she returned with very little alteration to the individual teeth, but with the contour of the gums considerably altered by the addition of lumps of plastecine. The effect was exceedingly good and the finished dentures satisfied us all. I learnt a great deal from that patient, and wish I could make a few more dentures for sculptors.

Perhaps the chief criticism of what I have advocated will be an economic one. How can one make dentures, on the lines suggested, for the National Health Insurance scale of fees? The answer is, of course, that one cannot, which brings us to the very important question of how much to charge for dentures.

Before we start to consider fees we ought to get it quite clear in our minds that the denture side of a dental practice should not be made to carry on its financial back an uneconomic conservation side, as is, I am afraid, frequently the case. The solution is a matter of increasing fees for conservation work and speeding up one's work till each operation consumes only an economic amount of time. The plan of assessing one's fees on a time basis appears to me to be rather an unfair one for both operator and patient. It places a premium on the slow operator so that the patient is asked to pay more to one dental surgeon than to another who would have performed the same work in less time. In the same way it is unfair to the rapid worker in that his increased speed will not earn him an increased income.

This is a slight digression; let us consider alternative plans for assessing the cost of denture service. First of all, it would be as well, I think, to see how the National Health Insurance scheme have arrived at their charges, as they make a very good basis from which to start. A mass of detail was accumulated by the Committee, whose object was to provide adequate denture service for large numbers of people and at the lowest possible cost. At the same time it had to be borne in mind that the fees must be an adequate remuneration for those members of the profession who cared to undertake the work. After considerable discussion it was decided to base the charges so that an operator of average skill, working, I think it was, seven hours a day for five and a half days a week, could earn £500 a year. It must be remembered that these charges are for the poorest members of the community, for the cheapest materials of adequate strength, and for the shortest possible operating time.

Knowing how these National Health Insurance figures are arrived at, we can now determine our own charges, but in illustrating different methods I shall use the original figure of £6 for full upper and lower dentures rather than the present one of £5–10s. merely for convenience.

We start then with :—

Shortest time and cheapest materials, £6.

The shortest time probably means composition impressions, wax bites, plain-line articulation and no attention to balance. Cheapest materials would be rather inferior grades of vulcanite and cheap teeth which would, of course, be inferior in porcelain, shape and shade.

The next stage is an improvement in either time or material, not both, and for this better service we might, perhaps, charge double, so now we have :—

Longest time and cheapest materials £12

or—

Shortest time and expensive materials £12

Actually time is worth more than material, so the two classes should not be the same figure.

Longest time would consist of the most painstaking and skilful work of which we are capable, though the materials would still remain as before. This class of work would satisfy those individuals who want comfortable, efficient dentures without undue regard to appearance.

Expensive materials would consist of the better types of teeth and one of the more æsthetic denture bases and would be demanded by those patients to whom appearance is all-important.

Both these classes are used merely as an illustration, and you will already have appreciated the wide variation permissible with slight improvements of technique with slightly better materials.

The last class is, of course, the best possible in both technique and materials, and for this we might perhaps charge three times the original :—

Longest time and expensive materials £18

Another method of approach is to determine how much we believe we can earn. If we consider our work is worth £500 a year we charge National Health Insurance fees; if it is worth £1,000 a year we charge double, and so on. The point to remember here, of course, is that we must give increased service for increased fees. It will be useless to expect double fees for the same standard of work.

The last method I shall mention is based on the patient's income and, though largely used, is probably the most unsatisfactory of the lot. The National Health Insurance fees are designed for a maximum income of £250. Double the income, double the fees, and so on. In actual practice this requires considerable modification, and can only be used in the smaller communities where all one's patients and their circumstances can be fairly accurately gauged.

Partial gold work is much more difficult to assess, but if we take the highest figure allowed by the National Health Insurance for a partial denture, *i.e.*, £2 15s., and treble it for the increased skill and time required, we get a basic figure of about £8. The highest National Health Insurance figure is taken as the skill required to design and construct a one-tooth partial gold denture is as great as if more teeth were needed. To this basic figure must be added the cost of materials, which will probably give us a final figure of about £12. Variations from this can be made as wished either from the difficulties of the case or the patient's ability to pay.

Temporary dentures should be charged for as ordinarily. The patient may not return for further dentures, or may keep the temporary ones for years. Alternatively, temporary dentures are only essential to the higher income-earning members of the community.

There is another question which the newly qualified man has to decide, and that is, whether to have a mechanic of his own or send all his work out to a mechanical laboratory. This question is of particular interest to the man who puts up his plate and starts on his own. If one takes a partnership or buys a practice one is naturally rather diffident about making alterations to the existing order.

Mechanical laboratories vary from very bad to very good, depending on their charges, but they all suffer from the same fault, which is that they bear the individuality of the workshop and not that of the dental surgeon. It would be unreasonable to expect our own particular fads and requirements to receive the same attention that they would in our own workshop, and this, in my opinion, has a very deleterious effect on one's prosthetics. With some of the larger laboratories the characteristics of the firm are so constant that one can pick up a denture and say with certainty that it was made by Messrs. X.

With a workshop of one's own, on the other hand, there is the constant incentive to try out new techniques, mechanical as well as surgical, and the experience thus gained becomes of immense practical value.

In the early days of building up a practice it is unlikely that one's time will be fully occupied in the surgery, and there is usually ample time to do one's own mechanical work. This again is most valuable experience, and everyone I have met who started in this way never ceases to be thankful.

After a short time it becomes necessary to have some help in the laboratory, and if one is careful in selecting the right man one gains a life-long friend with the good of the practice as the common link. It is a mistake for a young dental surgeon to employ an elderly mechanic unless he be an exceptionally adaptable individual. The older mechanic has already become set in certain methods and techniques, and it is difficult for a young man, with little experience behind him, to insist on changes. Strangely enough, it is easier to change a complete technique, say from plain-line to anatomical articulation, than to alter detail. A young mechanic or even a complete novice is a much more sensible proposition. He will be entirely dependent upon his surgeon. If he is the right type of youngster he will be keen to try new ideas, will soon look on the practice as being his practice, and together you will have your failures and successes, and so build up a sound technique founded on each other's capabilities. You will find that each will stimulate the other in the same way that each will prevent the other's slackness.

Perhaps a word or two on choosing this paragon might not be amiss. Preliminary education, hobbies, home and ambitions are the main points to inquire into, with experience and training as secondary considerations. A good preliminary education is very desirable, and he should be encouraged to read everything he can get which bears on dental mechanics. You should make a special point of handing on any dental periodicals which contain any references to his subject and should discuss these together, sifting the wheat from the chaff. For the first year or two you, with your greater experience, will be doing most of the criticism, but later he will be able to point out many snags which you would not have detected. As a general rule a craftsman has, by the age of twenty, already taken up very definite handcraft hobbies, and the presence or absence of these is a useful indication to a prospective employer. Home is a rather indefinite but very important factor. A youth cannot do his best work and develop as he should if his home life and leisure surroundings are uncongenial, nor if he is physically undernourished.

I have laid rather a lot of stress on this question of a mechanic, but I do feel very strongly that commercial laboratories tend to reduce the standard of work and contribute largely to the present unfortunate attitude towards dental prosthetics.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

St. Louis, Thursday, October 21st

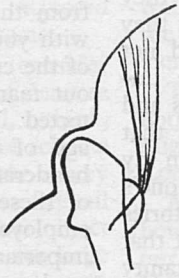
A FEW odd notes in the morning. Alvarez talked. I wondered why I did not see him at the Mayos. Apparently he has few hospital patients, but does diagnosis and, above all, is their leading speaker at meetings. He has a magnificent way with him, really spontaneous, happy humorous phrases that express real truth and, above all, the idea of the very sane and cautious physician who will never advise operation unless forced to, and whose chief standby is to wait and see the patient again. Doctors feel he is a fine fellow and will not rush their patients with anything rash. He had a "diagnostic clinic." He said the two chief essentials of ulcer treatment were: first find out why they got it, is it their home or their job? second, food between meals—and in his own case malted milk tablets. If the case is bad, set the alarm to wake them every two hours during the night for a glass of milk.

At the Mayo exhibit, Henderson has a fine show of wax models showing all sorts of fracture treatment, including his screw for fractures of the neck.

Wilson Hey (of Manchester) talked at 2 on his operation for devascularising the stomach; too technical for this audience, but interesting stuff, and I must go and see him in Manchester. Hinton of New York next, on duodenal ulcer—excellent, but I was too nervous to listen carefully. Then myself, introduced as Master Surgeon of Oxford. The talk went reasonably well.

In the evening dinner with Evarts Graham; also present Hey, Lahey, Womack (Graham's junior) and two Englishmen, Nicholson, of Manchester, and Thompson, of Bart.'s. I had not appreciated Graham's place in chest surgery. He was the first man to do total pneumonectomy, and the patient (an obstetrician at Pittsburgh) is well and at work five years later. Lahey was at the top of his form, full of fine stories.

Brackett.—Where head visible, neck sawn off and trochanter shifted.



Whitman.—Head removed and trochanter shifted.

Colonna.—Trochanter implanted in acetabulum; glutei detached subperiosteally, and re-attached lower down.

Fig. 70.

I was interested in three models of stabilising operations for the ununited fracture. The Colonna is a new operation (*J. of Bone and Joint Surgery*) by Colonna, of New York, in which the great trochanter is implanted in the acetabulum. It gives greater stability and less shortening than the Whitman. There was also an excellent show of nucleus polposus herniæ, and a big demonstration, with Dr. Kepler in charge, of adrenal disease with sex changes. I got nothing very clear, but it seems the same thing may happen with adrenal adenoma carcinoma or hypertrophy, beta-celled pituitary adenoma, arrhenoblastoma of the ovary, or nothing at all. An arrhenoblastoma, apparently, is supposed to arise in testicular cells, but Kepler thinks they are just as likely from adrenal rests.

Friday, October 22nd

Went along at 8 to hear Lahey talk on surgery of hepatic and common ducts. Some of his pathology was new to me, as saying that the pathogenesis of common duct stones was the same as that of gall-bladder stone—infection. He says they do not use the intravenous route much for cholecystography. A non-filling report does not mean too much; filling is interfered with in pregnancy (Graham confirms, but says only in the later months and that the cause is probably

mechanical interference by the large tumour), in "any pyloric pathology" and in colitis. They always operate when there are stones.

When the patient has had cholecystectomy elsewhere and now has recurring attacks of pain suggesting common duct obstruction but no jaundice, decision whether to explore is a difficult one. Duodenal intubation will nearly always tell, by crystals or pus cells, if there is a stone. They have had the correct answer in 30 out of 32. Strictures of common or hepatic ducts nearly always have a history of hæmorrhage at the previous operation; the cystic artery escapes, and the surgeon, diving for it, clamps the common duct, which sloughs or fibroses afterwards.

Lahey enthusiastically advocates cholecyst-jejunostomy for duct obstruction. Cholecyst-duodenostomy is physiologically right, but the duodenum has to be pulled up to gall bladder, and the moving liver is always pulling on the fixed duodenum. Cholecyst-gastrostomy is the easiest operation, and that usually done, but the thick stomach wall and mucous membrane makes difficult anastomosis, peristalsis at the pyloric end is pulling on it after, the ducts are often dilated by gastric pressure later, and "gastric ulcer" of the gall bladder develops. (Hey and others gave several instances of this tumour formation after cholecyst-gastrostomy at dinner last night.) In cholecyst-jejunostomy, a loop is pulled up over hepatic flexure and joined to gall bladder, and also stitched to liver capsule to relieve tension; works very well.

After Lahey, Womack drove me four miles to the Barnes Hospital (medical school). The operating theatres have taken no thought to use daylight—very rightly. They have usual arrangements for visitors, but better, for they really see from the gallery better than the floor, which is not true at most places. Visitors come in the lift to the floor above, where there is a registration desk, cloakroom, sitting-room and smoking-room to the left of passage. In the passage a list of operations, to the right doors to the galleries, with a light where an operation is in progress.

The galleries are nice and high, well over the table, and have a sheet of plate glass good enough to use glasses through and high enough to shut

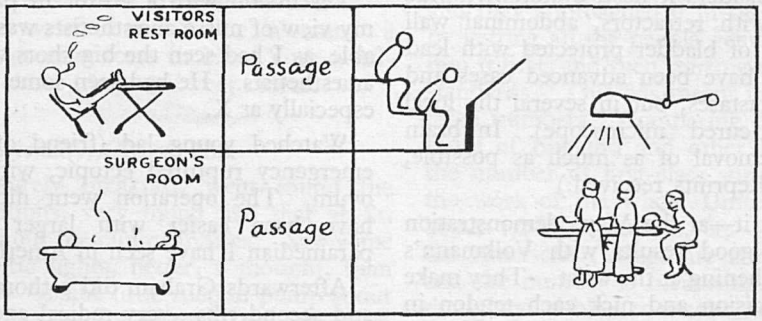


Fig. 71.

visitors off entirely from theatre. Gopher was doing a breast under local, Brown a hare lip.

We went to the X-Ray Department, under Dr. Sherwood Moore, a very fine man. Main things of interest there were: (1) the Laminograph—idea being to impart similar movements linear, rotary, spiral and so on, but in opposite directions, to X-ray tube and plate about a fixed point *x* so that everything above or below that plane is out of focus and eliminated. This is the patent of a young engineer in 1929. A similar idea, the Tomograph, came out later, but was made sooner. An Italian gets the same effect by oscillating the patient.

In practice the main value is in things like:—

(1) Fractures of temporo-mandibular joint.

(2) Injuries in upper 3 vertebræ. In these the jaws, temporal bones, and so on can be eliminated; good pictures of internal auditory meatus and so on can be got.

(3) Cavities in lung. These impressed me far the most. A cavity only guessed in straight X-ray not only stands out without any shadows, but serial sections through it 1 cm. apart can be made, and the depths of each part measured.

There was another beauty of a doubtful mediastinal shadow coming out as a calcified gland; of doubtful calcification in the abdomen showing up as a fusiform aorta.

The multiple-slit machine I saw in Germany is the Kymograph. (2) Low voltage deep X-ray. The machine he uses can take 140,000 volts, but is worked at 85,000. It is used unfiltered and direct to the tumour. Low voltage and no filtration means a lot of short waves that are absorbed directly by the tumour.

Chief uses: malignant glands in neck, or other cancers by reflecting skin, he can give deep tissues

10 to 15 times the dose skin will stand at one sitting. Skin is easily killed and also liable later even up to 20 years—to get carcinoma, which is of a very malignant type; no knowledge of mesoblastic tumours following radiation. In bladder, where he considers it best, cystotomy, wide spreading open with retractors, abdominal wall and normal parts of bladder protected with lead sheeting. These have been advanced cases and have died of metastases, but in several the local lesion was quite cured (microscope). In brain tumours, after removal of as much as possible, they irradiate. (Reprints received.)

Before I forget it—at the Mayo demonstration were some very good results with Volkmann's with tendon lengthening at the wrist. They make a longitudinal incision and nick each tendon in turn about two-thirds of the way through, on opposite sides and about $1\frac{1}{4}$ inches apart. Tendon is then stretched over Spencer Wells, and not ruptured; occasionally a stitch may be needed. Results, according to photographs, excellent.

This morning went to Graham again. Strange system of "service cars" in St. Louis. The trams are rotten and the buses slow, so a lot of men run private 7-seater cars with a label where they are going. You stop them and jump in—as far as you like for 15 cents. This took me out to the Barnes Hospital in a quarter of an hour.

Graham's first case was a woman of 55, history of hæmotemesis; X-rays shows rounded shadow half-way between golf and tennis ball in right lower lobe. Artificial pneumothorax done some days ago, suspected adenoma. Incision submammary (as mentioned yesterday, says for single lobectomy he would really prefer posterior 7th space incision). Turns up flap of superficial layers (including some fibres of pectoralis major) as far as second rib. Divides second to fifth costal cartilages, stripping pectoralis major in line of fibres. Cuts along 4th space, close to upper border of 5th rib (to avoid vessels) with scissors. At inner end finds and ties int. mammary artery; cuts between clamps. Separates lung adhesions with hands and toffee apples (four male assistants and one instrument nurse). Forces ribs apart with screw spreader, and gradually gets pedicle clear. First ties topmost artery separately, then gets string tourniquet on pedicle, another further out, and removes lobe. Much backchat between Graham and Womack (who was examining the specimen) as to whether he had left a bit of tumour behind; finally snips another bit of stump with scissors. Careful tying of things in pedicle separately; no mass stitches. No bleeding. Sutures cartilage with catgut stitch and sharp needle, drainage by plain catheter (about 12) through stab to 6th space anterior axillary line. Deep catguts to fascia and fat; interrupted to skin. Catheter is joined to trap drainage; section if blocked.

Discussion with a visitor in passage; he said my view of nurse anæsthetists was unduly favourable, as I had seen the big shots who got the best anæsthetists. He had seen some pretty bad ones, especially at X.

Watched young lad (friend of Brock) do an emergency ruptured ectopic, with beautiful free ovum. The operation went nicely, but would have been easier with larger incision; first paramedian I have seen in America.

Afterwards Graham did a thoracoplasty of first and second ribs—very radical and extraperiosteal for first. Used J incision, but no higher than 3rd rib behind. He says in these days of educated public anyone seeing a J incision knows that patient has had a thoracoplasty and is tuberculous. A low incision allows the patient to conceal this.

After lunch in the hospital—tray, grab, stand, pay system—Graham took Thompson, Nicholson and myself for a three-hour drive. We spent a good hour at a lovely Zoo, with the best natural terraces I have seen anywhere. Then a drive through wooded and hilly agricultural country, with the brilliant autumn tints of the American trees. One of the reddest is an oak, whose leaves are larger, but not greatly unlike ours.

After packing, I went to the theatre to see "Tobacco Road," recommended by Nicholson. Stark play about the poor whites of Southern Georgia, people who have sunk to an economic and cultural level well below that of the negro, and live in filth and semi-starvation with patches of the Bible. Found the dialect hard, the quiet unemotional tempo difficult, and the blasphemy a bit steep, but got into it and liked it.

Sunday, October 24th

8.55 caught the "Green Diamond," one of the new stream-lined Diesel trains. It really is stream-lined, with gaps between carriages faired off, a pointed tail with windows in it, and a complete undershield. It goes about 75. Reached Chicago 1.45, and after clocking in at the Stevens (3,000 beds) went on a bus to the Planetarium. This is not the place to enthuse about the wonders of space, but it was just amazing to sit in a hall with the Chicago skyline all round and see the stars and planets go round, speeded, spot-lit and tabulated as required. The lecturer was the perfect man at the job, speaking even slower than

Baldwin. Of course, it was all learned up, finishing with a bit of oratory about how one can sit and watch the universe till one becomes one with it and seems to hear the music of the spheres —on which "Air on G String" played on very muted violins floats gently through the roof.

After dinner went to see "The Women," a play that is a great success in New York. All-female cast of about forty, and very clever.

Monday, October 25th

After a leisurely breakfast, went round the medical exhibitions, very much like that at St. Louis, but without the clinic circuses. Saw some excellent scialytic lights, better, I thought, than the Multibeam. A fine little suction pump about 6 by 6 by 6. After that I went round the Aquarium and the anthropological section of the Field Museum.

At 2 p.m. some medical films, and then off to the College of Surgeons to see the introduction of some 500 initiates to the Fellowship.

It is hard to understand the problems and difficulties, and the faith and achievement of the American College of Surgeons, a body entirely different to our College, apart from the story of the development of surgery in that country—indeed the development of the country itself. Two books that have appeared lately, "Surgeon Extraordinary" (the life of John B. Murphy), by Loyal Davis, and "The Horse and Buggy Doctor," by Dr. Hertzler, are not only classics of vivid writing, but tell, in each case through the eyes of one man, the story of a country growing with incredible rapidity, and of surgery growing with it, not by development, but by rushes, often ill-considered ones. A doctor found himself in charge of a community, with no help within four days' journey. He had to do what surgery there was. If he was ambitious he did bigger and bigger stuff. If he was confident and successful, more and more people came to him. From operating in kitchens he sometimes graduated to a "hospital," in which he lit the stoves and pumped the water, and his wife cooked and did the nursing. If things went well and the community round him also prospered, a real hospital was built, and improved by additions of buildings and staff, till in some cases it became, within the lifetime of the doctor who founded it, a huge centre of international repute. But till lately, and except in a few centres, surgeons have made themselves rather than been chosen, and the same thing is still happening. Every man on qualification is an M.D., and no one is either less or more. One large university decided to give an M.B. as its qualifying degree, and make the M.D. a higher qualification, but the drop in entries made them change their minds.

This is the problem that had to be tackled 25 years ago by the founders of the American College, and they approached it in the only possible way, by getting all the people genuinely doing surgery into it first, and then starting to educate and raise standards. This has meant the inclusion of very large numbers. Comparing their numbers with those of England and other European countries the number of first-class surgeons needed to do the work of the whole United States would be about 1,200, at most 2,000. But the Fellows of the American College are already round 12,000, and the number is increasing. Yet all of them, though not subject to examination, are put through a very stiff test for their credentials—at any rate within recent years

The founders, among whom Crile seems to be a prime mover, have done a wonderful amount since the College was started Apart from their general work, they have done three things of the greatest value to American surgery, and to that of other countries; they established the Bone Sarcoma registry, they have a system of hospital standards that has done much to raise the material side of surgery, and they have set up fracture organisations in every State, whose representatives meet at their annual gathering. Unity is much more difficult to attain in a country so large and so scattered. Washington, the seat of government, and New York, the commercial capital, are both too peripheral for a home of the College, and Chicago has been chosen as perhaps the most accessible from all the States and from Canada. They have bought a block of buildings in Erie Street, chief among them the huge house of some rich business man, built at the time when taste demanded the greatest embellishment of every corner of a building. It is the Albert Memorial brought into a private house. Columns of marble of every colour stuck everywhere, gilt, carvings, brackets, inlaid woods, twisted iron, and stained-glass windows to complete the picture. This place they have adapted for reception rooms, library, museum, and so on. Both library and museum are a little rudimentary at present, but they are hard at work furnishing them, and the reprint and reference part of the library is an efficient organisation at the service of all Fellows.

They have also built a magnificent Hall. Magnificent it is in size, for it will seat twelve or fifteen hundred, and it is copied from some famous hall in Paris. French decoration reminds me of the Metropolitan, Edgware Road, but the scene in this

large and rather ornate hall, with the organ pealing, the dais filled with the Board of Regents in their robes, and these 500 initiates occupying the body of the hall in dark blue and red gowns, was certainly a colourful one. The initiate Fellows looked a fine lot, and surprisingly scattered in ages—some young, some quite old boys now accepted for the first time. The climax of the ceremony was when they all stood up and read in unison the initiate pledge, as follows :—

"Recognising that the American College of Surgeons seeks to develop, exemplify and enforce the highest traditions of our calling, I hereby pledge myself, as a condition of Fellowship in the College, to live in strict accordance with all its principles, declarations and regulations. In particular I pledge myself to pursue the practice of surgery with thorough self-restraint and to place the welfare of my patients above all else; to advance constantly in knowledge by the study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance on the important societies and clinics; to regard scrupulously the interests of my professional brothers and seek their counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely my services to the needy. Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness, to shun unwarranted publicity, dishonest money-seeking, and commercialism as disgraceful to our profession; to refuse utterly all money trades with consultants, practitioners or others; to teach the patient his financial duty to the physician, and to expect the practitioner to obtain his compensation directly from the patient; to make my fees commensurate with the service rendered and with the patient's rights; and to avoid discrediting my associates by taking unwarranted compensation. Finally, I pledge myself to co-operate in advancing and extending, by every lawful means within my power, the influence of the College of Surgeons."

After this there was a tea reception. Then back with the Criles to change for Regent's dinner, 6.30, preparatory to a beano at 8. This was a lot of speeches, leading up to the Annual Oration by Lockhart Mummery.

Tuesday, October 26th

Went to Passavant Hospital to see Dr. Mason, third in command to Kanavel—a delightful man, who, however, does little active work. I saw a number of hand and arm injuries, chiefly burns, treated by plastic operations of various sorts. They were nearly all pedicled flaps, that did not strike me as being as good, certainly not as sightly, as the thick Thiersch graft shown by Baird at St. Louis. Uses marine sponges over gauze to get even pressure. Then went in to see Sam Brock doing a hernia. He is a nice chap who was at Rouen during the war and knew all the crowd at 5 General. Cafeteria lunch, and found that Mason and Coller were also Western Front men. Coller sends love to Gordon Taylor (? 12 C.C.S.).

After lunch I attended the Cancer Symposium. A man from the Mount Sinai, New York, John H. Garlock, reported three successful resections of œsophagus for carcinoma, making Nos. 7, 8 and 9. Uses Torek's method, 7th intercostal incision, cutting 5th, 6th and 7th ribs behind; chief modification that he cuts off œsophagus above growth, just below aorta, to facilitate pulling out, and that he dissects it in mediastinum above the aorta before he goes to the neck. Lockhart Mummery and Lenthal Cheatle spoke.

Afterwards I found Roscoe Graham, of Toronto, and had an apple in his room. He got Coller at Ann Arbor on the telephone, and arranged for me to spend Saturday with Max Peet on the way to Toronto. Dinner at 6 p.m., given by David at his club. I sat between Dean Lewis and Dixon, of Rochester, and we had an enjoyable meal.

At 8, a mixed surgical meeting. Means, of Boston, talking about selection of cases of ulcer for surgery, followed by Roscoe Graham, who discussed the type of operation extremely well; very much my conclusions, except that he likes Finney. Then Naffziger on nucleus pulposus, which he lumped in a group with rupture and fibroma of ligamentum subflavus. Then Dean Lewis on chronic mastitis—a little heavy for the audience and the late hour.

I do not like this meeting; too big. It lacks the comic element of St. Louis, and the surgeons, instead of hanging about like actors in the wings, are buzzing around and hard to find. The hotel is so huge that it is impossible to feel at home; each floor really is a hotel in itself, and has its own office of keys, letters, etc.; 14 lifts, 7 slow, 7 express; 30 outside telephones, 10 inside; 4 restaurants—posh, homely, alcoholic, cheap; shops of every kind, laundry, hair-cutting, and so on.

(P.S.—The section pump is the "Stedman," sold by America Systoscope Makers, Inc., New York.)

(*To be continued.*)

Selected Surgical Cases Resulting from the Present Sino-Japanese War

By B. L. Evan Wang, Anatomy Dept., Dr. Sun Yat-Sen Medical College, Canton (late Captain, 13th Red Cross Unit; Tem. Major, 4th Route Army).

BEFORE presenting these cases to you, I must state that I have no claim to being a surgeon except that I was trained at Guy's and was at one time a house-surgeon in Lancashire. At the outbreak of hostilities, a sense of duty, and not a little of curiosity, moved me to join up with the Chinese Forces. The number of casualties was appalling, and it seemed that I could be of some use; also I wanted to experience something of modern warfare.

On starting work, I found that the causes of the casualties were due to air attacks, artillery bombardments, machine-gun barrages, rifle-fire—in that order. I saw only one case which might have been due to poison gas (? Lewisite), but I was not at all convinced. The Chinese Forces were being decimated before they could bring their antique armamentarium into action, but once they "came to grips" with the enemy, the latter almost invariably got the worse of it. After careful study of my notebook, I have selected the following four cases for presentation, hoping that you will find them of some interest.

CASE 1.—*Extrusion of the pancreas.*

A private, aged 24 (Chinese count, and therefore about one year less according to foreign count) was shot in the back by a sniper. He was rushed behind the lines in a semi-conscious condition bordering on the state of collapse. With treatment for shock he improved considerably, but vomited twice. The vomitus consisted of undigested food with no evidence of blood.

Previous history and general examination revealed no abnormality except that the patient was somewhat undernourished.

On examination of the wound in the back, a small clean hole was found, about one and a half inches to the left of the second lumbar spinous process. The bullet entered there and passed completely through the body; on examination of the ventral aspect, another hole was seen, about three-quarters of an inch below the tip of the eighth left costal cartilage. This exit-hole was tightly plugged up by a firm, solid mass of tissue, roughly circular in shape, with a maximum diameter of nearly one inch. On palpation of the abdomen, some "guarding" in the epigastrium and in the left lower quadrant of the abdomen was found. There were no other physical signs. The patient's pulse, abdomen and condition in general were kept under close observation. The pulse remained steady, the "guarding" seemed to be diminishing instead of increasing, likewise the general condition seemed to improve rather than worsen. The patient's only complaint was one of hunger. He agitated incessantly for food, so laparotomy was indefinitely postponed, and, with some misgiving, he was given nourishment by mouth. It was soon obvious, however, that his alimentary tract was in no way affected, and he was put on full diet for the sake of peace!

The hole in the back healed by primary intention. The protruding mass on the ventral aspect was dressed every day with normal saline and was kept scrupulously clean. The mass was at first yellowish-white in colour with plainly marked trabeculæ; but after two or three days the colour seemed to be changing to a yellowish pink, also getting softer and smaller. At the same time it was noticed that the skin edge of the hole was somewhat reddened, swollen and eroded.

As to the nature of the mass, I am of the opinion that it was pancreatic tissue. The bullet tore away a part of the body of the pancreas, together traversed the omental bursa, missed the stomach by passing above its lesser curvature, and together ripped their way out of the body by passing through the left rectus sheath. It was most unfortunate that we did not have the time nor the facilities to investigate thoroughly the nature of the mass and that the patient had to be transferred, making room for new cases needing operation. Thus I lost touch with the patient and did not have the opportunity of confirming my diagnosis. I can state, however, that the fæces appeared normal and that there was no sugar in the urine. (Caustic soda test, not having Benedict's or Fehling's solution.)

CASE 2.—*Rapid onset of gas-gangrene and death.*

This patient was a captain aged 26 (Chinese count), who was struck by a bomb splinter on the lateral aspect of the right thigh, about three inches below the greater trochanter.

No abnormality was found on general examination, the patient being a fine specimen of a soldier, with no previous illness or wounds.

On examination of the injured area, a wedge of steel was seen to be partly embedded in the

tensor fascia lata muscle. The patient had not lost much blood and was in excellent condition. He was given 1,500 American units of A.T.S. and was kept comfortable until the theatre was clear of major casualties.

At 5 p.m., approximately ten hours after the "accident," we gave him a short, closed ether anæsthetic and treated his wound. Using fingers, the wedge of steel was gently withdrawn. It was seen to be lying more or less horizontal in the tissues, embedded to a depth of about two inches. Not much hæmorrhage followed removal of the foreign body. The wound was debrided, left open, dressed, and the patient sent up to the ward.

On the night round he was comfortable except for a little headache. Some aspirin was given, and he made no complaints during the night. In the morning, however, at 8 a.m., I was told that the patient was complaining of much pain in his wound, was pale, and sweating profusely. I examined the injured thigh at once, and was horrified to find that a large area around the wound was tensely swollen, brick-red in colour, and, on deep palpation, crepitation was elicited with escape of gas-bubbles from the open wound. The gas had a putrid smell reminiscent of sulphuretted hydrogen. The swelling extended above, almost to the iliac crest, and below, to the lower third of the thigh. The foot looked pale, felt cold, and I could not feel the dorsalis pedis artery pulsating. The radial pulse was very weak, rapid—almost running. The patient said he was feeling a little faint with the aching of his damaged limb and he was thirsty; could I do anything for him?

His mind was perfectly clear. I checked up on the history and he answered all my questions readily and correctly. Now what was I to do? I did ask for anti-gas-gangrene serum when I first saw him, but we did not have any. Now it was too late, and the only hope was guillotine amputation. I decided that he should first have glucose-saline infusion, but half an hour later he died quietly, conscious almost to the end.

So here we have a case ending fatally a little more than twenty-four hours after a comparatively trivial wound. At the time I certified fulminating gas gangrene as the cause of death, but, on second thoughts, it may be that anærobic streptococci played a more important part than the B. Welchii and Sporogenes. Did the patient also have a streptococcal septicæmia in view of the rapid onset of death?

CASE 3.—*Laceration of the brain.*

This patient, aged 33 approximately, a cook, was struck a glancing blow on the head by a large piece of shrapnel. He did not have on a "tin hat" at the time, and the flying metal tore away most of the right half of the frontal bone, including the scalp, dura and part of the frontal lobe of the brain. He was still unconscious when I saw him, and there seemed little I could do. There was no need to shave the scalp, as the patient had an army regulation shave. All I did was cautious irrigation of the open wound with hot normal saline (about 110 degrees C.), removing dirt, blood clot, and detached particles of brain tissue; then I cleaned up the edges of the lacerated scalp and put the patient in the ward. No anæsthetic was necessary. About two hours later he began to regain consciousness, and altogether four hours after the operation he was able to answer simple questions. During the next forty-eight hours the patient made remarkable progress. He had no complaints except for headache, which was relieved by liberal doses of bromide. General examination showed no abnormality except for a spleen just palpable. He stated that he suffered badly from fever and chills ("Hot, cold"—Cantonese name for malaria) five years previously. There was no evidence of defect in speech or hearing, or of paresis. I was beginning to entertain some hope for the patient when, on the fifth day after the "accident," he suddenly developed a violent bursting headache, and vomited. His temperature, which previously was normal, was now 100.6 degrees F. and neck-rigidity was for the first time found to be present. In spite of the open dura mater, lumbar puncture was done. The cerebro-spinal fluid was found to be under pressure and slightly cloudy.

So after a latent period of five days the patient developed meningo-encephalitis, and we lost a good cook, for he died on the following day.

CASE 4.—*Bullet wound through the skull and brain —with recovery.*

The last case of this series was a victim of an air-raid in Canton, 28th May, 1938. One of the planes suddenly swooped down and machine-gunned an overcrowded refugee shelter, injuring several women and children. On examining the casualties, one boy was found to have received a through-and-through wound of the skull and brain. Together with other serious cases he was admitted to the Canton Hospital attached to the Dr. Sun Yat-Sen Medical College. With the permission of Dr. Man Wong, superintendent of the hospital and chairman of the International Red Cross Association, I will report this case.

The victim was twelve years old, well-developed and nourished, in good health before the attack, past history irrelevant. The bullet entered the skull in the left parietal region, about three

inches superior and one inch posterior to the mastoid process. The exit hole was found in the left frontal region, about two and a half inches directly above the external angular frontal process. Both entrance and exit holes were small, round and cleanly drilled. The latter was somewhat larger than the former, almost half an inch in diameter, and some brain matter protruded, making it evident that the bullet had pierced the meninges and the brain.

On admission, the patient was conscious, but dazed. The hair was shaved off and the wounds in the scalp and skull were carefully washed with normal saline and a dry dressing applied. It was decided that stitches in the scalp were unnecessary and inadvisable.

The boy was then put to bed and given some bromide. His temperature at that time was 99.8 degrees F., pulse 104. He gave no trouble during the night, and on the following morning he had no complaints except for pain in the head. Though the patient was right-handed, there was no defect of speech or hearing and no paralysis. General examination was negative, the wounds had discharged a little blood-stained fluid, but there was no pus. The temperature was 99 degrees F. and pulse 100. He was kept on bromide t.i.d., and was also given some magnesium sulphate to keep the bowels free.

On the next day, the wound was clean, temperature and pulse normal, and the patient was quite comfortable. Bromide was given for one more day and then discontinued. From then on the patient made a remarkable and uninterrupted recovery. The scalp healed nicely, there was no more headache and he felt quite fit. Twelve days after admission he was discharged from the hospital apparently unaffected by the grim incident which he had so recently experienced.

Remarks.—The patient was actually well enough to leave the hospital within seven days after the "accident," but we kept him longer to make sure that meningitis and/or cerebral abscess would not ensue. On his discharge he was given strict instructions to report monthly, as it is not unlikely that traumatic epilepsy might be a sequel. Finally, one would like to doubt very much whether the bullet actually pierced the meninges, but there was no mistaking the brain-matter which escaped from the exit hole.

Recent Additions to the Wills Library

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Correspondence

Royal Medical Benevolent Fund

To the Editor of the GAZETTE

SIR,—Each year for nearly thirty years Christmas Gifts have been sent, in the spirit of good cheer, through the agency of the Royal Medical Benevolent Fund to members of medical families whose poverty and distress, often coupled with infirmity, illness and loneliness, have made their ageing days a pitiful existence.

Those who have received the gifts are old medical practitioners or their widows and daughters, who are debarred from any luxury or lighter pleasures in life.

What luxury or extra pleasure can be enjoyed on an income of £90 a year which has to meet all the necessities of life?

Will you help us again in making this appeal known to your readers? The Committee has felt that this is a matter which always appeals to the warm and generous hearts of medical men and women, and that no broadcast appeal should ever be made to the general public.

"The family" to whom our gifts are sent is a very large one, and we need over £1,000 if each one of our beneficiaries is to receive the customary Christmas Gift of 30*s*. This can be done only if we receive the same generous response as last year. I know that the present days are difficult, but everyone could spare a small contribution to add to the pleasure of those whose lives are sad at Christmas time.

Please send donations, large or small, to the Honorary Treasurer, Royal Medical Benevolent Fund, 11, Chandos Street, Cavendish Square, London, W.1.

I thank all for their help and co-operation in past years in our Christmas Gift scheme, and shall be deeply grateful for a generous response to this appeal.

Yours, etc.,

THOS. BARLOW,
President.

Royal Medical Benevolent Fund,
11, Chandos Street,
Cavendish Square, W.1.

Sport

Rugby

Guy's v. Cambridge University

(At Honor Oak Park on Wednesday, November 2nd)

AFTER one of the brightest games seen this season, Cambridge University defeated the Hospital by 3 placed goals, 3 penalty goals and a try (27 points) to 2 placed goals, a penalty goal and a try (16 points).

The 'Varsity fielded a very strong side, which included six Old Blues and the Scottish Internationals J. G. S. Forrest and R. B. Bruce Lockhart. On the other hand, Guy's were strengthened by the return of L. Babrow, who had been nursing an injury since the beginning of the season, C. Halamandres and A. E. M. Wiggins. They also included H. F. Osmond, a hooker who had been playing consistently well for the Old Haileyburians, and a new right-wing three-quarter in J. H. Phillips, a freshman who turned out for Swansea's First XV last season. The weather was perfect and the ground in excellent condition when Guy's kicked off and immediately established a footing in the visitors' 25.

After hammering away at the Cambridge line, Guy's took the lead when Dick gathered a pass from Steytler and, although hemmed in on all sides, he managed to slip through the defence with only an inch or two to spare and scored a fine try, which Plowman converted with a difficult kick from the touch-line.

Three minutes later Plowman put the Hospital further ahead when he kicked a penalty goal from forty yards' range.

Both sets of forwards packed 3—4—1, but,

although Cambridge were the heavier, Osmond outhooked Chadwick, the 'Varsity captain, during the first half, and the Hospital backs made full use of the opportunities that came their way.

A dangerous movement between Sherrard, Downes and Bruce Lockhart was intercepted, and a little later Van Steytler checked another raid and found touch near midfield.

After Phillips had driven the visitors back to their 25, Babrow caught Bruce Lockhart in possession, the ball went loose and Hanson kicked ahead and won an exciting race for the touch-down, but Plowman just failed to add the goal points from an easy position.

At this stage the Hospital were playing magnificently; their tackling was superb, and for twenty minutes the 'Varsity backs seldom crossed the halfway line.

Guy's nearly scored again when Babrow cut through the centre, but he had no support and eventually he was overhauled by Geddes and Forrest.

Cambridge now began to fight back, and after Geddes had found touch near the Hospital's 25, their forwards were on the point of scoring when Plowman kicked the ball out of danger.

However, the 'Varsity kept pegging away and soon reduced the deficit when Read kicked across field, where the ball bounced fortunately for Forrest, who took it in full stride and swooped under the posts for Geddes to convert.

Both teams were playing attractive football and each attacked in turn; for Guy's—Dick, Babrow and Van Steytler were outstanding.

Near the interval Cambridge staged a grand revival, and after Downes had had a try disallowed for knocking-on, they were awarded a penalty for offside and Geddes kicked an easy goal.

Then Parsons broke away from a loose scrum and passed to Downes, who outstripped the Hospital defence, touched down for a fine try near the posts, and Geddes gave the visitors the lead when the whistle went for half-time.

With the sun and wind in their favour, Cambridge attacked from the start and nearly scored in the first minute, but Hanson saved and made a run of fifty yards before he was forced into touch by Geddes.

A splendid effort by Dick and Van Steytler forced Cambridge to defend on their goal-line, but eventually the speedy 'Varsity backs got the ball and carried play to the opposite end of the field.

Cambridge were awarded two penalties in quick succession, and Geddes, who had played an outstanding game at full-back, kicked two more goals.

The visitors had the misfortune to lose G. E. Hodgson, one of their best back-row forwards, who had to retire with a knee injury, but they more than held their own, and the extra speed of their outsides made itself felt.

Downes started a movement which did not appear dangerous, but he managed to get the ball to Forrest and the latter electrified the large crowd present with a grand run and, after deceiving Phillips and Plowman, finished up with a try behind the posts, and Geddes again obliged with the goal points.

After Bruce Lockhart had made an attempt to drop a goal, Parsons broke away from a five-yards' scrum and was over the line before anyone could lay hands on him, but Geddes missed an easy chance to convert.

It looked as though Guy's would be well beaten, but in the closing minutes they recovered and stormed the Cambridge line time after time.

Their efforts were rewarded when Babrow passed to Dick, who worked his way through the centre and Fletcher was up to take the final pass. However, he had to fight hard to cross the line, and eventually he touched down for a try behind the posts and Plowman converted.

It was a splendid finish to a rousing game, and the Hospital are to be congratulated on their fine display. There was a definite improvement all round, particularly in the pack, where Osmond made a successful debut.

Team.—R. D. Plowman; J. H. Phillips, L. Babrow, R. C. S. Dick, J. M. Hanson; J. van A. Steytler, C. Halamandres; D. N. Fuller, H. F. Osmond, C. C. Vidot, J. F. Bulstrode, P. Fletcher, C. S. Darke (Captain), P. D'O. Kolesar, A. E. M. Wiggins.

Golf

ON Thursday, November 3rd, we played and beat University College Hospital in the second round of the Inter-Hospitals Cup at the West Hill Golf Club. It was a glorious day and the course, as usual, was playing in fine condition. The foursomes, played in the morning, resulted in two wins each, but in the afternoon we managed to win the necessary odd single match, thus beating our opponents by 7 points to 5.

Results were as follows :—

FOURSOMES

Guy's		*University Coll. Hosp.*	
J. C. Ritchie and T. N. Praat (4/3)	1	D. P. Choyce and J. W. Twining	0
K. S. Maclean and J. G. Mathewson	0	A. G. Riddell and J. Joyce (1 up)	1
S. G. M'Callum and S. A. Marsh	0	D. H. Twining and F. L. Dyson (1 up)	1
T. H. Eustace and J. Drury (2/1)	1	G. H. L. Bullmore & R. S. Cox	0
Total	2	Total	2

SINGLES

Guy's		*University Coll. Hosp.*	
Ritchie	0	Choyce (2/1)	1
Praat (2 up)	1	Riddell	0
Marsh (8/6)	1	Joyce	0
Drury (2/1)	1	J. Twining	0
Mathewson	0	Dyson (4/3)	1
Maclean	0	Bullmore (1 up)	1
Eustace (7/6)	1	D. Twining	0
M'Callum (5/4)	1	Cox	0
Total	5	Total	3

Final Result.—Guy's, 7 points; University College Hospital, 5 points.

Hospital Information, etc.

Notices

MEDICAL SCHOOL.

Applications are invited for the post of Resident Anæsthetist (two vacancies); duties to commence on the 1st January, 1939. Applications should be lodged in the Medical School Office not later than 30th November, 1938.

T. J. EVANS, *Dean.*

GUY'S HOSPITAL MUSICAL AND OPERATIC SOCIETY

The Guy's Hospital Musical and Operatic Society's Concert will be given at 8.15 p.m. in the Physiology Theatre on Tuesday and Wednesday next, November 22nd and 23rd. The first half of the programme will include Bach's Suite No. 2 in B Minor for flute and strings, and Liszt's Pianoforte Concerto in E flat arranged for two pianos. The second half of the programme will be the Concert Version of Edward German's "Merrie England," performed by full Choir and Orchestra. Members of the Hospital are heartily invited to bring their friends, and applications for tickets—reserved (Amphitheatre), 6*s.* and 3*s.*; unreserved (Gallery), 1*s.*—should be made at once to the Hon. Ticket Secretary, Mr. G. A. R. Winston, the Wills Library, Guy's Hospital, S.E.1.

Pass List

ROYAL COLLEGE OF SURGEONS.

L.D.S.

FIRST PROFESSIONAL EXAMINATION.

September-October, 1938.

Dental Mechanics and Dental Metallurgy.

O. R. Berry
D. Hand-Bowman
H. H. Brown
H. A. Buck
E. O. W. Jones
P. D. Jones
R. E. Matthews
I. A. M. Mitchell
H. L. P. Cullingford
D. K. L. Davies
A. C. G. Freer
D. L. Gabb
R. C. Green
J. A. Orchover
F. F. Robson
S. N. Simpson
C. Sumsawaste
B. P. Taylor

Anatomy and Physiology.

A. E. Baxter
H. H. Brown
J. D. Buxton
J. Cranfield
H. L. P. Cullingford
A. A. Dyas
R. M. Gillies
D. A. S. Harvey
A. V. Hurst
J. O. Legg
R. G. Lomax
M. G. Marks
G. Morris
J. P. I. Rose
J. F. S. Rumble
N. I. Scott
J. C. Timmis
H. R. Unstead
E. D. Whiteley

Special Anatomy and Physiology.

W. T. Athey
B. M. Cox
P. A. Dodington
J. H. Flitcroft
F. A. Gresham
A. Halamandres
H. A. Hall
E. A. G. Hilton
E. C. Lewis
W. E. Jackson
J. O. Pierce
I. W. Ross
M. Wilks

Papers by Guy's Men

Apsey, G. R. M., and Another. Anti-pernicious principle; Experiments with urine. *Brit. Med. J.*, 1938, ii, 934.

Brock, R. C. Pulmonary new growths; Pathology, diagnosis and treatment. *Lancet*, 1938, ii, 1041, 1103.

Rushton, Martin A. The dental tissues in osteitis deformans. *Dent. Rec.*, 1938, lviii, 611.

Kenshole, H. H. Facial neuralgia. *Clin. J.*, 1938, lxvii, 458.

Hankey, George T. Osteomyelitis (necrosis) of the jaws: Its pathology and treatment. *Brit. Dent. J.*, 1938, lxv, 549.

Mollison, W. M. Earache. *Practitioner*, 1938, cxli, 577.

Bennett, T. Izod. Diet in health and disease: XVII—Diet in Diabetes mellitus. *Ibid.*, 677.

Changes of Address

J. H. E. Winston, 213, Upper Selsdon Road, Sanderstead, Surrey. *Sanderstead* 3741.

EDS. { C.H.E. W.E.Y.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

WHATEVER attractive prospect lies ahead of him every man has a feeling of regret on leaving Guy's, and he must look back on the years spent here with a sense of gratitude to all who have contributed towards his happiness. This nostalgia is a natural consequence of having lived some of the best days of his life amongst congenial companions in a pleasant, almost carefree, atmosphere which he will be a lucky man to recapture in after-life. For the memories that he takes away with him he owes much to his contemporaries, some to the fact of Guy's being Guy's and therefore as unconventional as its peculiar architecture, a little to himself and his attitude toward his associates, but most of all perhaps to those who have taught him throughout his training.

Any teaching institution which has gained both a reputation and the love of its students has for its tutors men who are remembered not only for their teaching but for a something that acts as a catalytic agent for the complex reaction of the transference of knowledge from one to another, a something that is difficult to define but that is sometimes called by that ill-used word "personality." Here at the Hospital we have been fortunate in having men of ability as our teachers and men who have had the happy knack of imparting their knowledge surely and in an attractive manner, and no small part of our standing as a medical school is due to these people.

Outstanding in our time as a possessor of these virtues is a man who, in a few days' time, we are to lose from our Honorary Staff—a man of unusual teaching ability, a man of great wisdom, learning and understanding, and a man of great character who has done more in the way of creating happy personal memories for generations of Guy's men to carry with them than any other for many a year. Mr. Hughes, our Senior Surgeon, is an institution as great as and as well-beloved as the one in which he has worked unselfishly for so long. He has given to Guy's an amount of love, care and attention that he has deemed right and proper to a place that he holds so dear to him. He will not be forgotten here as a man of great personal charm, an unsurpassed teacher and an uncannily wise surgeon; his simple direct teaching, his proverbial courtesy, his humour, his modesty, his manner with the patient, his interest in everyone have made for him a popularity that few may boast.

Some measure of his power as a teacher may be gained by observing the numbers who have regularly awaited his punctual arrival at two o'clock for his rounds, for the importance of these two social events of the week has been fully appreciated. His clinical teachings have always been so much to the point, so clear, so entertaining and have had such a lasting effect; who could ever forget after having been on with Joey the mode of onset of a perforated ulcer, the sequence of investigations of a suspected renal lesion or the enormous importance of the right forefinger? Nobody left one of his rounds without having firmly stamped on his mind the clear impression of at least one important essentially practical clinical fact; none left in any doubt as to the high quality of his dressers or the innate wisdom of Mr. H. S. His surgical opinion has been much sought after in any difficult case, for his advice is carefully weighed, well garnished with a rich experience, and always contains that refreshing thoughtfulness for the patient as well as for his disease. Whoever has worked with him knows the priceless value of that most difficult of all treatments to adopt, "masterly inactivity." His humour is essentially the humour of attack, but his quips are encouraged by his victims, who will walk toward him eager to sample to the full that valuable leveller, a good laugh

against yourself. Joey sees people in a light that it is healthy for them to shine upon themselves at least occasionally, but never has he to resort to the cruel or biting criticism to hammer his words home.

Guy's has been his interest, and to it he has devoted a full measure of his most lovable character and wide learning; Guy's has been enriched by these gifts from a man who has given them modestly and without regard for personal glory. We owe to him a great debt, and one we feel that is being repaid as he would wish by the unstinted affection that is felt for him by his patients, his students and his colleagues.

THERE will, it is announced, be no "Niggers" this Christmas. It has, not unreasonably, been decided that the time has come to give them a respite. Whether they will ever return it is not possible for us to predict, but it is unlikely, if they ever do come back, that it will be in the same guise and with the same sort of programme as they have had in the past. While, in spite of what we said in the last *Gazette*, we feel a certain small regret at their passing, we are sure that the experiment is worth the trial so that some judgment can be made of their value, so that some balancing of issues, of the antipathy from above and the enthusiasm from below, can be brought about. There has always been much discussion as to the enjoyment the performance gives to the Residents, the nurses, the camp-followers and the patients (those, that is, that are well enough to stand the racket) on the one hand, and, on the other, as to the animosity it engenders in the bosom of the Superintendent, of the Matron, and, it is occasionally reported, of members of the Staff. There is, it may be said, many a *pro* and many a *con*, and it will be of the profoundest interest to study the reaction of Guy's to the absence on Christmas Day of that glittering but staggering band of its picked alumni.

WE regret to announce the death of Mr. Hugh Davies-Colley, O.B.E., F.R.C.S., on November 16th at Frensham. Mr. Davies-Colley, who entered Guy's Hospital from Cambridge in 1897, was the elder son of a former surgeon to this Hospital, the late Mr. J. N. C. Davies-Colley, and a brother of one of our present Honorary Staff, Mr. R. Davies-Colley. He was a Major in the R.A.M.C. and Surgeon to the Cambridge Military Hospital. We extend our sympathies to his relatives in their bereavement.

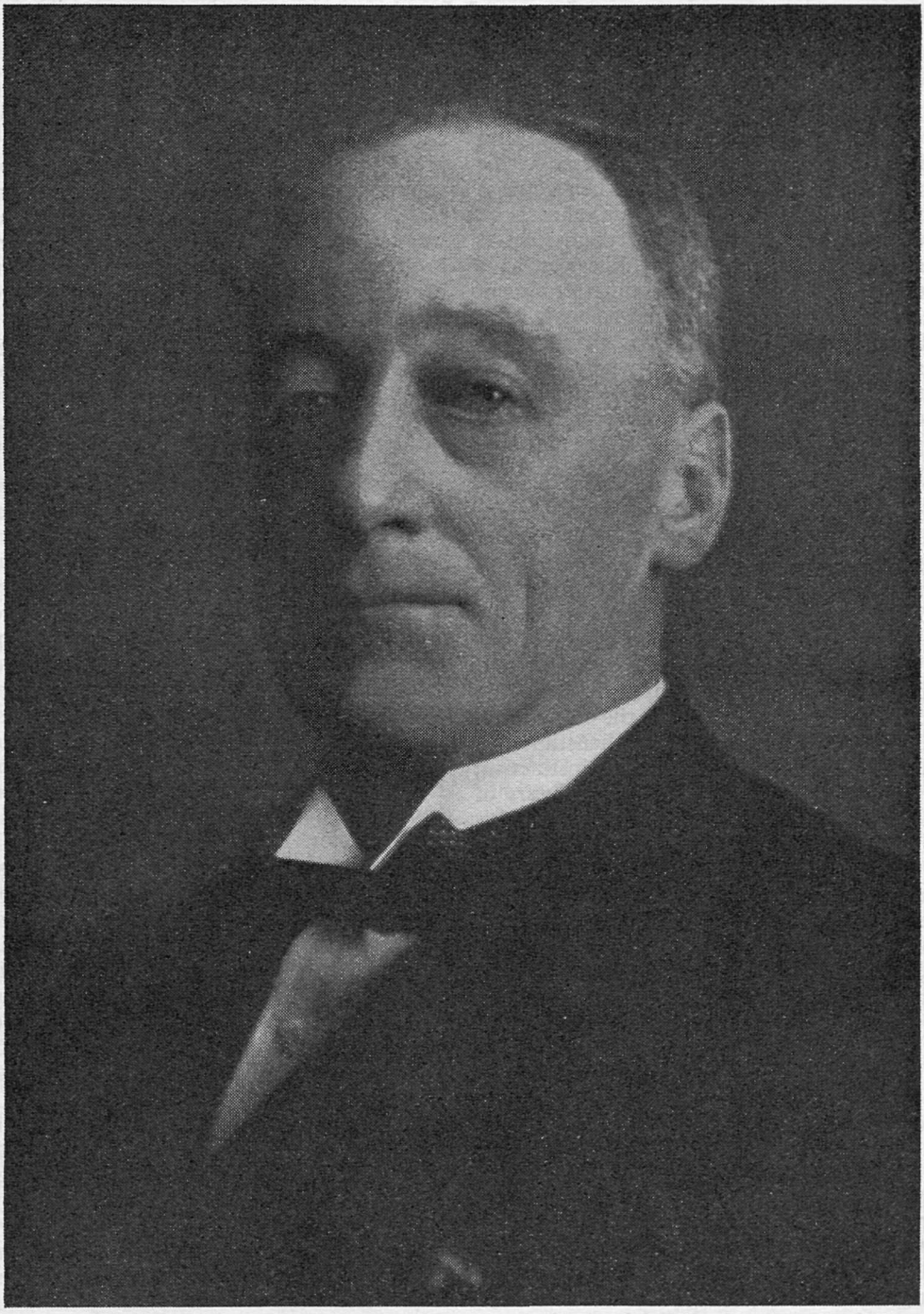
THE Biennial Dinner of the Guy's Employees' Association was held on Friday, 25th November, with Professor Johnston in the Chair. Mr. H. L. Eason, the guest of honour, proposed the toast of Guy's Hospital and Schools in an excellent speech in which he recalled his early days at the Hospital when the word "efficiency" was less in evidence, and when it was customary to discuss the uses of an annual surplus rather than brood upon financial ruin. His prognosis for Guy's, however, was optimistic, for he said that we had, in the past, risen triumphant from crises as bad as this present one. Mr. Hughes, replying, paid tribute to the non-medical side of the Hospital, which included so many and varied activities that were not always appreciated in their true worth but which were so essential to the proper working of the clinical units. He spoke warmly of those omnipotent beings whose daily task it was to save us from floods and darkness, and reminded us how paralysed we would be without their ready help.

The toast of "The Association" was proposed by the Superintendent, who made a special point of thanking all its members for their invaluable assistance during the trying days of the European crisis, a time that was a great test of the loyalty and co-operation of all workers within the Hospital. Mr. G. A. Walker, the Chairman, in response told us of the small beginnings of his Association many years ago, and reminded us that he has been connected with it since its inception and has watched it grow into an important organisation.

It was a splendid dinner, and we must, all of us, have had warm feelings in our hearts for the organisers of such an enjoyable evening.

ON Thursday, December 5th, a Pianoforte Recital of works by Beethoven, Chopin, Liszt, Bartok and Donanyi will be given by Joseph Weingarten at the Conway Hall, Red Lion Square. This concert, all proceeds of which are to go to Spain for food for Spanish children, has been organised by the Guy's Hospital Students' Spanish Aid Committee. Tickets may be obtained from or subscriptions sent to the Secretary, 37, Gainsborough Gardens, N.W.11, or from Mr. W. W. Gilford, Guy's Hospital. (Prices, 5*s*., 2*s*. 6*d*. reserved; 1*s*. 6*d*. unreserved. Enclose stamped addressed envelope.)

THE Christmas Cards, kindly supplied by Ash & Co., Ltd., are now on sale at the Counting House, Matron's Office, the Wills Library, and the Shop. The whole of the proceeds are given to the Hospital. Last year's sales amounted to between £80 and £90.



E. C. HUGHES, O.B.E., M.Ch.

Joey Hughes

GUY'S men come and go. Their coming is usually unnoticed, and they emerge as separate personalities only as they form their circle of friends and assume a place in the composite picture of hospital life. Their going is an event in proportion as their friends value them, and the place they have made for themselves is an important one. There cannot, however, have been an occasion when the impending retirement of a member of the Staff was viewed with more general or universal regret than is that of Joey Hughes. His friends are the whole hospital community, his place one that none can fill, and we all know that Guy's will be a different, a sadder and a grimmer place when his kindly smile and ready wit are no longer matters of daily encounter.

When I arrived at Guy's with a group of Oxford friends, he was pointed out to us by all with whom we worked as the most brilliant young man the Hospital had known for many years, one for whom the Governors had created a special post lest he should be tempted to join the staff of one of our rivals. Since then I have always watched and listened to him with admiration, and not a little envy. For his knowledge of all the things that matter in surgery is apparently inexhaustible, his judgment has a soundness that seems instinctive, but is really the accumulated legacy of years of careful observation and painstaking analysis, his forecast of events to come is almost archangelically right. He is the man we ask to look at a case that puzzles us, to whom we bring our difficult problems for discussion. He may give his diagnosis with an apology and his opinion in humorous phrase, but the diffidence is no more than the mark of an innate delicacy, and the jest of his desire to avoid any appearance of superiority. Above all he has been, for many years, the one to whom most Guy's men have turned when they are ill, to whom they have brought their fathers and their children.

But it is as a clinical teacher that he has made a name that has possibly not been excelled in the memory of Guy's men. His ward rounds on Monday and Thursday afternoons have been so packed that one might think that many of his listeners on the outskirts of the crowd would lose that personal contact so essential in the intimate bedside teaching that is a unique feature of clinical education in London, and particularly at Guy's. But Hughes has the observation that seems to scan all the class, even those behind him, the understanding that can bring out old subjects in an even new light; he is master of the telling phrase that can make a cliche memorable, the whimsical appeal that draws the timid into his circle and the gentle gibe that will galvanise the lazy or self-satisfied. His teaching is simplicity itself, the bedrock principles that many fear to broach and few can handle well. He never falls back, as the less richly stored are prone to do, on discussing the latest fads and theories, yet he is always well versed in any new work of importance, constantly replenishing his knowledge and sharpening his wits at that unrivalled post-graduate centre the Board of Examiners of the College of Surgeons.

It is impossible to recapture on paper his teaching methods, yet it is in these that his particular genius lies. He is seldom serious, yet withal so obviously earnest that his chaffing questions can never excuse a careless or flippant reply. He draws the whole class into the family circle, by appeals to each in turn, by interrogations pushed firmly but kindly to the verge of the third degree, and then suddenly transferred to another whose attention seems to flag, by humorous titles assigned to each, describing his rôle in the class ("our consulting physiologist" or "Mr. Pathologos"), his origin ("Mr. B.A., Cantab."), or his personal appearance ("The Bishop"). Ridicule is alien to him, for ridicule suggests malice. The stories related of him are innumerable, all illustrating the whimsical side of his character, his ability to comfort a diffident houseman by the reassurance of a droll *non sequitur*, his power to alleviate the pain or still the fears of an anxious patient by gentle banter. A young house-surgeon rang him up (this was years ago, for it was George Doherty) about a case that had been operated upon that afternoon over which he was needlessly worried. After listening patiently to the whole story, Hughes said, "Now then, can you give me the exact time?" "Yes, sir; three minutes to ten." "Well, if you run like a hare, you'll just get into the Ship before it closes." And again, an old lady, crippled and feeble, limped into Lydia for her weekly visit. To Joey's inquiries she replied, "Oh, Mr. Hughes, I'm not at all well this week. My legs ache so that I can hardly walk." "Ah, Mrs. Green," with a kindly hand on her shoulder, "you've been playing football again."

Such stories we tell about Hughes, but words cannot give a picture of his kindly nature, nor

convey, much less explain, the spell he has exercised over all departments of Guy's for many years. We who know him think of him as a man who has countless friends and admirers and no enemies or critics; who has never said an unkind word or done a mean action; who has given the best of a long life to Guy's and whom Guy's in turn looks up to as an example of her spirit at its finest. There is reason to hope that he will be the first member of our Consulting Staff to retain his active connection with the Hospital, and that we shall have the benefit of his teaching for some time to come.

W.H.O.

Prognosis

Opening Address to the Pupils' Physical Society, 13th October, 1938, by John A. Ryle, Esq., M.D., Regius Professor of Physic in the University of Cambridge, Consulting Physician to Guy's Hospital

MR. CHAIRMAN and GENTLEMEN,—In accepting the distinction so kindly accorded to me of addressing the opening meeting in the new session of the Pupils' Physical Society, I have considered how I might seek to repay in appropriate coin some small part of the great debt which I owe to the Guy's School, to its teachers, to its history, to the indefinable atmosphere of its student life, and not least to its student societies. Of all the gifts to be derived from association with these which, I have asked myself, setting aside friendships, should we prize the most? My answer, without hesitation, is "*Clinical Discipline.*" This I believe to have been one of the outstanding contributions of the Guy's School to medicine and to students of medicine in past generations. May it remain a guiding principle in the generations to come.

Of what clinical discipline is compounded it would take too long to tell, but it is that without which no one can hope to become an effective physician and with which our own great masters from Bright and Addison, Gull, Moxon and Wilks, to many of my own teachers, living and dead, were peculiarly well endowed. I do not suggest that other schools have failed in the exercise of those methods which encourage clinical discipline, but I do claim with pride that no school in the world has rivalled ours in its output of great clinical teachers and of worthy disciples in the field of practical medicine.

Now the three tasks of the clinician, be he physician, surgeon or specialist, are diagnosis, prognosis and treatment. Of these diagnosis is by far the most important, for upon it the success of the other two depends. It is, however, of prognosis as a product of clinical discipline that I wish to speak to-night. In my quite recent recollection (for I left London and Guy's only three years ago) it was a common grumble that ward teaching, as a whole, was over-insistent on diagnosis and allowed too little time for therapeutic talks. I remember no such reference to the neglect of prognosis in bedside teaching. At that stage, perhaps, the student has scarcely come to a full recognition of its importance. And yet, difficult though it be, I believe that instruction in prognosis should be given more consideration than it commonly receives, and that it should anticipate treatment in the discussion at the bedside—or, preferably, at a discreet distance from it. Diagnosis is really incomplete and sound treatment and the assessment of the results of treatment are impossible without that rational forecasting based on pathology and observational experience which we call prognosis. Prognosis involves a better appreciation of the whole pathology of a case or a disease than present diagnosis, and although the future contains even more variables and unknowns than the past, it is none the less possible to establish guiding principles in prognosis which improve knowledge and bring advantage to the patient and his doctor and, in many conditions, allow a high degree of accuracy. Prognosis is essentially a physicianly task. The pathologist, the biochemist, and the radiologist, although they may greatly assist that task, have no immediate concern with it. The study of prognosis is sometimes considered academic rather than practical, but it is a part of my plan to remind you not so much of its value as an academic exercise as of its many practical uses. For the sake of your patients and their relatives and for the ordering of your judgments it is a daily duty; for the improvement of your understanding and as the clinical measure of pathological processes seen in their true perspective it is an essential discipline.

THE MEANING AND USES OF PROGNOSIS

Hippocrates said, " I hold that it is an excellent thing for the physician to practise forecasting. For if he discover and declare unaided by the side of his patients the present, the past and the future, and fill in the gaps in the account given by the sick, he will be the more believed to understand the cases, so that men will confidently entrust themselves to him for treatment. Furthermore, he will carry out the treatment best if he know beforehand from the present symptoms what will take place later."

These views and the famous prognostic aphorisms were based on clinical experience alone, with none of the checks or confirmations furnished by pathology or by biochemical or other modern assessments of degrees of tissue damage or functional impairment. In this regard they may appear the more remarkable, but we should also remember that, lacking scientific aids and specific remedies, Hippocrates was, in fact, compelled to train his mind and form his judgments on the basis of an undistracted study of the natural course and history of the diseases which came to his notice. In other words, he employed methods appropriate to what would now be called the Follow-up Clinic, of which he may, perhaps, be acclaimed the first founder.

An understanding of the natural or undisturbed course of a disease must provide the basis of all prognostic assessments. In many conditions to-day this course can be greatly modified by specific treatments, by surgery or by altered modes of life. In other conditions our endeavours still have little influence. In others again unwise interference may, and too often does, give an adverse bias to the patient's prospects. Advancing knowledge has both assisted and complicated prognosis. The assistance has come through new diagnostic methods and tests of function and the provision of specific remedies; the complication through the influence of new and potent, but sometimes more hazardous treatments, or the multiplication of alternative treatments. To take an example, we now have much more precise methods of assessing degrees of thyrotoxicosis. By means of improved assessments we have to decide between medical treatment, X-ray treatment and operation in the individual case. Either the withholding or the employment of a particular measure may entail risks to health or sometimes even to life.

Prognosis is often held to imply no more than a decision as to whether the patient will recover or not, or an estimate of the duration of his disease. Just as diagnosis means " through " (or thorough) knowledge of a case and is something more than mere nomenclature or a label, so, too, prognosis (or foreknowledge) should mean a visualisation and reasoned presentation of all the events which are likely to mark the future course of a particular disease affecting a particular patient, and not a mere forecast of its duration and outcome. Nevertheless, judgment in practice must also be guided by mortality statistics and a knowledge of the prognosis of diseases as a whole.

PROGNOSIS AS A DUTY

In what respects is prognosis to be regarded as a duty, that is to say as a normal and proper physicianly function? In all serious illnesses, in many less serious conditions, and in some which are trivial in the doctor's eyes, but nevertheless a cause of anxiety to the patient, the main interest of the patient and his relatives, apart from the immediate relief of symptoms, is to know what the issue of the illness will be rather than its precise nomenclature. They do, in point of fact, want to know the diagnosis, but solely or chiefly as a guide to prognosis. A troublesome cough or an abdominal pain are apt to imply pulmonary tuberculosis or appendicitis or cancer to the lay mind until assurance is given to the contrary. Comfort and reassurance, indeed, play a part in treatment which, although their influence cannot be measured, are universally accepted as essential contributions to progress and even to recovery. In organic as well as functional diseases we are becoming steadily more impressed by the interrelationships of emotion and bodily change. Anxiety is the most prevalent of all the harmful emotions. The best counter to anxiety is a good prognosis. It is not without significance that the ablest and most successful physicians have also included among their number the most optimistic. A change in the whole feeling and attitude of a patient and his or her relatives not infrequently dates from the visit of a family doctor or consultant who has been at pains to emphasize the likelihood of a good recovery. I find it difficult to credit that there exist doctors who tell their patients—save in exceptional circumstances—that their condition is hopeless, and yet in taking histories how often one has been told that " my doctor said I could not recover," or " they only gave me a week to live," or " three doctors gave me up." Let us admit that patients, like all of us, are apt to exaggerate dramatic or adventurous experience, and that usually these gloomy prognostications must have reached them at a later date; even so

it is clear that the relatives must have had to submit to an unnecessarily sad and head-shaking interview. Such pessimism, and this is the point I would make, is repeatedly proved unjustifiable by the event. Doctors, in other words (although their good prognoses are more rarely wrong), repeatedly fall short in their prognostic judgments. Need they fail so often and need their bias so frequently be adverse? Excepting in inoperable cancer, bacterial endocarditis, a few other rare progressive maladies, and obviously moribund states, we have no such certainty of a fatal result as some of us are apt to assume. The longer we live the more lessons we receive in respect of the remarkable recoverability of the human body from grave diseases, from pneumonias and septicæmias, from heart-failures and grave hæmorrhages and accidents. Very few of the common acute diseases have a mortality even approximating to 50 per cent. Excepting at the extremes of life and in a small group of diseases at present unconquerable the chances of recovery are generally greater than those of demise. Children especially have great recuperative powers.

It is therefore wise and just to make a point of giving a good prognosis (whether the patient has questioned it or not) in all cases in which the clinical evidence and pathological knowledge allow it, and where doubt exists at least to give the patient the benefit of the doubt. In cases where the doctor himself is anxious and uncertain it is still reasonable and kindly and useful to stress the favourable points in discussing the case with relatives and, as for the patient, to congratulate him on his gains, his courage and his co-operation while excluding adverse auguries from the conversation. In the process of assembling " pros " and " cons " for the communicated opinion, the considered prognosis takes better shape; the partial expressed opinion, in fact, assists the whole reserved opinion. Sir Alfred Fripp used to say, " If we cannot be clever we can always be kind." With experience and the years to help us, we need not despair of educating both qualities.

Just as a good prognosis is calculated to do good, so, too, a bad one may do an infinity of harm and cast a cloud of gloom upon a household which will with difficulty be prevented from finding its way into the sickroom. Some men through native caution or a fear of loss of reputation decline to say openly that a patient may get well when it seems possible that he may die. To give no prognosis is almost as culpable as to give a bad one and is an evasion of responsibility. It is always possible to give what is called a " guarded prognosis." Wrongly placed optimism, provided it is not careless or breezy or accompanied by a disregard for sensibilities or a neglect of therapeutic detail, will rarely be held against a doctor. Wrongly placed pessimism, on the other hand, will always be held against him and even pessimism justified by events quite frequently so.

You may say that this policy of the reassuring prognosis is not compatible with intellectual honesty. I believe it to be perfectly compatible, so long as we do not delude ourselves. As scientists we do not bow to the foolish and impossible request of the law to tell the whole truth and nothing but the truth. We discover as much of it as we can, but remembering the limits of our precision we should recognise that it would be as unjust, through fear of error, to withhold comment on the more favourable features of a case, however few they be, as it would be to withhold any other helpful measure of treatment. If or when the outlook becomes absolutely bad, then we must impart our view to the relatives. Before that it is no failure of duty or honesty of purpose—while the mind is taking counsel with itself—to give rather more hope than the moment's uncertainty may seem to justify.

It is very important at times for the patient or relative to know how long an illness will last. If the illness be pneumonia or a duodenal ulcer or a Pott's fracture we can give a fairly close estimate both in regard to the bedridden and the convalescent phases of treatment. In other conditions we may only be able to give a very rough estimate, but for economic and other reasons even this is greatly appreciated.

Prognosis is a duty in another important sense in that it must constantly guide our treatment. To this end we must formulate our judgments with the greatest accuracy possible, assessing the probable course of the disease, learning (in order to foresee) complications which may demand alterations in treatment, visualising, in short, a total rather than an immediate pathology. We should also train ourselves to observe the strictest impartiality in assessing the proportionate contributions of time and nature on the one hand and of our own ministrations on the other. To accomplish all this we must needs be as diligent in our search for prognostic as for diagnostic signs.

Before leaving this aspect of my subject let me relate a single case in which the outlook seemed desperately bad, but in which a grave prognosis proved to be quite unjustified. Any physician or surgeon of experience will have seen other cases

in plenty which seemed as desperate but in which recovery followed.

Many years ago I was called in consultation to the case of a young woman in the sixth month of pregnancy who had fallen victim to a very severe attack of anterior poliomyelitis, sustaining a flaccid paralysis of all four limbs and many trunk muscles. As there was no early improvement and as the possibility of her going through the later weeks of pregnancy and parturition seemed out of the question, an attempt was made to induce labour. This failed, and a Cæsarean section was performed. A few days later she developed acute intestinal obstruction from an adhesion between the small bowel and the uterine scar. With extensive paralysis in numerous muscle groups, profound exhaustion, persistent tachycardia and some respiratory embarrassment, her condition seemed desperate and her hopes of happy and active life remote even should she survive another operation. Several colleagues met in consultation. At first I argued that it might be kinder to give morphine and interfere no more. An older and a wiser physician took the view that we should still seek to save life and that we could not forecast the degree of recoverability of her paralysed muscles. A Paul's tube was inserted and she recovered from the emergency. But she did more, for gradually, after months of weary waiting and devoted care, she made an almost complete recovery from all her disabilities and was able to walk and dance and lead a happy, active life again.

I have never been a pessimist. From this case I learned two valuable lessons : (1) that there were even fewer occasions than I had supposed for absolute pessimism, and (2) that the most extensive cases of poliomyelitis sometimes make the most complete recoveries. Had the case been one of intestinal obstruction from an inoperable and painful growth in an old, enfeebled person, the judgment might obviously have been a very different one, for the ultimate issue and the intervening misery, despite a temporary relief of the obstruction, would have been disputed by none.

PROGNOSIS AS A DISCIPLINE

There is always a pleasant sense of satisfaction in the achievement of a correct diagnosis. It is just a little too easy to rest on the laurels of that achievement. As I have remarked, diagnosis should strictly mean the thorough knowledge of a case. It involves not merely a correct label, but an understanding of the patient, a familiarity with his environment and with the antecedents of his malady, an appreciation of his inherited constitution and his psychological type, together with a proper appraisement of symptoms, signs and accessory findings. It requires a working knowledge of morbid anatomy, physiology and psychology. Prognosis requires all these and more. It requires acquaintance with mortality and morbidity statistics, with the death rate in different age periods, with the constitutional factors which increase or lessen morbidity, with the good and bad effects in differing circumstances of certain treatments, with the signs and symptoms not merely of the disease but of a good or bad response to the disease. Prognostic ability, in brief, is born largely of pathology and patiently gathered clinical experience. It evolves even more slowly than diagnostic ability. Minute and careful clinical observation, a good visual memory, and that necessary inquisitiveness about the subsequent course of cases which is nowadays systematised in the follow-up inquiry may all be numbered among the handmaidens of prognosis.

Prognosis might almost be defined as the continuous study of living pathology and in this, although it is often accounted an art, I would submit that it can become a scientific process. We are sometimes too content with a static pathology, but a biological process, whether physiological or pathological, is never static. Inflammation spreads or recedes, bleeding is arrested or continues, destruction and degeneration advance or are succeeded by repair. Whether through clinical, pathological, statistical or other methods we should bend our best endeavours to making prognosis more scientific. Science is not only that which is deemed exact. The science of meteorology is partly concerned with prognosis and bases its forecasting on scientific observations. Like medicine, its prognoses are baffled by unknowns and variables. I doubt whether they will ever attain such a degree of accuracy as medical prognosis, for all its shortcomings, has already attained. Weather forecasts can concern themselves with short-term judgments only. Medicine has a constant interest and a considerable tale of achievement both in immediate and remote prognosis.

Strictly speaking, the physician should ask himself in every case : (1) What is the immediate prognosis ? (2) What is the remote prognosis ? (3) What are the possible complications by the way ? (4) How may age or other circumstances peculiar to the patient influence the course of his disease ? (5) How will this or that treatment alter the outlook ?

In lobar pneumonia age, physical type, previous health, extent of lung involvement, the pulse-temperature-respiration ratio, the presence or

absence of cyanosis, the leucocyte count, the type of pneumococcus all have a bearing on prognosis. In the near future specific chemotherapy bids fair to introduce another factor. As a useful background we know that in the majority of cases the disease will have terminated within ten days and that in this country the general recovery rate is about 80 per cent., with a favourable variation in childhood and adolescence and an adverse variation towards and after middle life.

Hour-to-hour observation in one disease, day-to-day or week-to-week observation in another, may modify opinion. The information necessary for accurate assessments is often available if carefully sought for. In ninety-nine cases a boil on the neck gives us no anxiety, but we must never forget that through natural accident or ill-judged treatment the hundredth may give rise to a metastatic renal abscess or a fatal septicæmia. A cancer of the stomach may be inoperable, but depending upon its position and rate of growth it may run a variety of courses, with or without pain, with or without obstruction, with or without severe anæmia. We need to know and should try to forecast the likely course in each case, however hopeless the ultimate issue may be.

Books and teachers can tell us a great deal, but our own senses and the experience of the years tell us a great deal more. Prognostic ability of high grade can only come with long experience, but, clearly too, the earlier we begin to practise prognosis in a systematic manner the better it will be for our minds, for our patients and for the trust which they impose in us. This practice is a part of what I have referred to as "clinical discipline," and the best discipline, when teaching has provided the rudiments, is self-discipline. You must set yourself standards in observing, in note-taking and in critical commentary. You must always prefer facts to opinions. If you say to yourself, or hear your teacher say, "I believe this patient will get well," you must proceed to discover and analyse the reasons upon which that opinion was based, and, if it proves correct, to review the significance of the signs which instructed the belief. In subsequent cases of the same kind you will then be able to test your experience and by degrees to appreciate which clinical phenomena have acquired a positive or negative value.

THE INFLUENCE OF PROGNOSIS ON THE ASSESSMENT OF TREATMENTS

I have hinted already that we have no right to conclude that a particular treatment is effective in a particular disease unless we have first familiarised ourselves with its natural prognosis or its prognosis under conditions of purely symptomatic treatment. Neglect of this simple principle has been responsible for countless misjudgments and a great waste of time and money, and has caused inconvenience, discomfort and even death to a large number of patients. I have dealt with this subject in a previous lecture,* but must make a further brief reference to it here. Gull showed us long ago how to avoid large errors in therapeutic judgment when, in answer to some of his contemporaries who claimed that they had specific remedies for rheumatic fever, he devised the simple experiment of treating a series of cases with mint-water. He was thus able to show that the mortality and morbidity were no worse and the duration of fever no longer in his cases than in theirs and that their claims were thus unsubstantiated. In brief, he studied the natural prognosis of the disease and thereby corrected fallacies. Vaccines, sera, operations and proprietary remedies galore have been employed and are still employed in the same indiscriminate way as Gull's contemporaries employed their cures for rheumatic fever and with as complete a disregard for the lessons of natural prognosis. Only when a treatment has a physiological basis proved by animal and human experiment (as in the case of insulin and liver-therapy) or when, with its physiological or pharmacological basis still to be proved (as in the case of quinine) large-scale comparisons are possible between the natural and the modified prognosis, are real advances in therapeutics made. A year or two ago an injection reputed to assist the cure of peptic ulcers was launched with rosy claims but with quite inadequate experimental proofs and with no preliminary clinical trials. For a year or more it had a great vogue. Now it is scarcely heard of. Those physicians who at first advocated it, claiming that at least it relieved symptoms quickly, entirely overlooked the elementary fact that ulcer symptoms undergo spontaneous remission after a few weeks with great frequency and in duodenal ulcers almost with regularity. They did not know the natural prognosis of the disease. Surgeons and endocrinologists are discussing the merits of operation and hormone therapy in the treatment of undescended testicle. I recently had the pleasure of reading a thesis written by a school medical officer, Dr. L. S. Marshall, of Taunton, who showed that in a series of 1,916 schoolboys, ranging in age from 5 to 16 years, undescended testicle was observed in 5.1 per cent. Of these just over a half showed bilateral non-descent. Spontaneous descent occurred before puberty in

*Prognosis and Therapeutic Principles (*Brit. Med. Journ.*. 1936, ii, 1067).

95.7 per cent. of cases. Without basic knowledge of this kind no sound conclusions could be drawn in regard either to the new or the older method of treatment. Therapeutic enthusiasm and bias are dangerous. The study of natural prognosis is a corrective to both.

THE INFLUENCE OF DIAGNOSIS ON PROGNOSIS

It might seem absurd to discuss the effect of diagnosis on prognosis. Clearly an accurate prognosis cannot be made if the diagnosis on which it is based is wrong. A diagnosis may, however, be correct in name but only partially correct. A patient may consult you with angina pectoris. If the symptoms be due to an underlying anæmia or anxiety or have a slight physical basis with a large nervous aggravation and you give him the prognosis due to a case with advancing coronary disease, you will not only give a wrong prognosis but you will also do your patient harm (1) through denying him the correct treatment and (2) through increasing an existing anxiety. Angina pectoris, in fact, is not a diagnosis but a symptom. A familiar nomenclature used as a diagnosis commonly influences prognosis and treatment adversely. Here are cases in illustration of these points :—

1. A man in the middle fifties had been troubled for two and a half years with effort angina. Prior to its development he had passed through a period of very considerable anxiety and had lost a near relative from heart failure. He had restricted his activities to an extreme degree, having previously led a very active life. He and his wife were both unhappy and anxious. No contra-indications to a good prognosis and increased activity were found on the physical side. Psychologically a good prognosis seemed to be the wisest prescription. From that moment improvement was steady, and four years later he was reported to be in good health and busily employed in many useful ways.

2. I was consulted by two very anxious parents on behalf of their small boy, aged 7, who had frequently recurring seizures with transient loss of consciousness. I had no doubt that they were allied to epilepsy, but they were different both in their description and their great frequency (up to 18 fits a day) from ordinary epileptic attacks. On this account I took a reassuring line and redoubled the reassurance when I learned from Dr. Symonds that the description I was able to give him was that of pyknolepsy, a variety of seizure which I had not previously encountered and from which recovery is usually complete by puberty. Ten years later I received a grateful letter from the mother to say that the prognosis had been fully justified and that the boy had been completely strong and well and had entirely outgrown the attacks from the age of 13.

Once more an epileptiform attack is only a symptom or syndrome and, like angina pectoris, may carry very different prognoses. These in their turn must influence the lives and happiness of patients for better or for worse.

THE INFLUENCE OF TREATMENT ON PROGNOSIS

The influence of specific treatments on prognosis can be assessed with considerable accuracy, provided we recognise the effects of such variables as age, the duration of the illness and the expert knowledge of those in charge of the treatment.

It is almost impossible to measure the influence of symptomatic treatment on prognosis. Can a timely hypnotic or stimulant save life? Can a gentle and a skilful nurse or a cheerful sensible doctor make a difference between life and death, as compared with a dour and clumsy nurse, or a dull and careless doctor? Such questions we cannot answer with proofs, but we find it hard to doubt that the summary of symptomatic ministrations frequently determines or hastens recovery. Well-timed and well-chosen surgical treatment or specific therapy can undoubtedly and in numerous circumstances save lives that would otherwise be lost, but withholding surgery and specific treatment in certain circumstances may also save life or improve prospects.

The real personal difficulties arise in those cases in which the arguments for or against operation or a drastic measure of treatment are evenly balanced. Then the simplest and most direct question we can put to ourselves is this: "Are the risks of this operation or treatment, on the evidence before me, less or greater than those of the disease left to Nature and symptomatic methods?" Operation is the treatment of choice in appendicitis, but there are cases and stages and complications of appendicitis in which prognosis (even though the symptoms are very anxious) is better with delay than with immediate action. A treatment, in fact, should not be employed because it is the official treatment for the disease from which your patient is suffering, but because you believe his particular prognosis will be improved by it.

Again, in anxious situations it is reasonable to pause and ask oneself: "Would I wish this method to be employed if my own wife, mother or child were the patient?" In asking this question we help to balance belief or interest in a method or its advocates against personal responsi-

bility subjected to its sternest test, thereby weighing prognosis in the most critical scale that conscience can devise.

TEMPERAMENT, ANXIETY AND PROGNOSIS

There can be no doubt that the emotional qualities of the physician may considerably colour his judgments. I had a good friend, now dead, who was an able diagnostician and noted for his gloomy prognostications. Although his reputation was large he must have lost not a little practice in proportion to the loss of hope which he unwittingly engendered in the hearts of patients and their doctors. Men like Sir William Gull, Sir James Goodhart and Sir William Osler—all great and wise physicians—were reasoning optimists and their practices were large in proportion to their generous natures and forecasts.

There is not one among us, however, who can escape the influence of anxiety in harassing situations, and anxiety cripples judgment. This is at no time better manifest than when sickness comes to the doctor's family. With rare exceptions, doctors find themselves incapable of sound judgments about their own wives and children, and prefer to summon the help of colleagues. An illness which would cause no alarm in a neighbour's wife can bring to mind all the possible and gravest complications in your own.

There are, however, many other occasions in the course of practice in which anxiety is so great as to hamper decision. Here again self-discipline may lend a helping hand, and by sitting down to the facts of the case in the evening (remote from the appeals of an unhappy household and the threatening outward aspect of the illness itself), by totting up the favourable and unfavourable features, recalling past experience or talking the problem over with a friend or partner, reason is recalled and we are enabled to give a just prognosis, carrying its message of hope in one case or regretful anticipation of further anxious days or weeks in another. Both in diagnostic and prognostic problems I have occasionally resorted to a sheet of paper and set down the plus and minus marks in two columns, not expecting a mathematical decision therefrom, but just as a means of balancing my thoughts.

PROGNOSTIC METHOD

If time had allowed I should like to have given you some rules of guidance for the prognosis of various types of disease. Let me take just one before I conclude, one which will frequently confront you in practice, which has many anxious complications, but which is, on the whole, too gravely regarded by doctors and much too gravely by the laity. It is one, furthermore, which should have a special interest for Guy's men in that its morbid anatomy was first thoroughly investigated by Richard Bright, while its clinical and pathological aspects were successively studied by Gull, Wilks and Mahomed after him. Originally included under the heading of Chronic Bright's Disease, it is now more usually referred to as Hyperpiesia, or simply High Blood Pressure. Here is a disease with a slow, insidious course, with a liability to death in the long run from cerebral hæmorrhage, congestive heart failure, coronary occlusion or combined cardio-renal failure.

The age, the weight, sex, occupation, mentality, mode of life and family history, the symptoms and physical findings in the individual case may all influence prognosis. The judgments are built upon clinical sense and morbid anatomy. Is it possible to balance the evidence in such a way as to impart a useful degree of accuracy to our opinions?

If the patient is a man aged 50 and his forebears have died suddenly of strokes or heart failure during or before the sixth decade, if he is overweight and lives too well or works too hard his prognosis is likely to be worse than that of a man of the same age with the same blood pressure, but who is lean and lives carefully and has a negative family history, or of a woman of the same age who has developed the high pressure of the menopausal years.

But let us confine ourselves in this instance to objective findings and see if we can usefully place our patient in one or other of four prognostic categories which have seemed to me convenient and useful in these difficult assessments.

In the first category the patient has been discovered to have a high blood-pressure in the course of a life assurance examination or has presented himself with minor symptoms of fatigue or irritability. His systolic pressure on more than one occasion is 170, his diastolic 100 mm. of mercury. His radial arteries are not appreciably hard, his apex beat is within the nipple line, his retinal arteries are barely beginning to dint the veins. His urine is of low specific gravity, but contains no albumen. He has had no warning signals and has developed no appreciable structural changes in heart, arteries, brain or kidneys. His diastolic reading, which helps to tell the state of the arterial wall, has not risen unduly. There is no need to give a gloomy prognosis. He may easily live ten years without illness or accident. Weight reduction, if needed, sensible modifications

of life and good holidays should nevertheless be counselled.

In the second category the artery is palpably thickened, the systolic pressure is 220 and the diastolic pressure 110 to 120, the apex beat is half an inch outside the nipple line, there is a solitary retinal hæmorrhage and the urine contains a trace of albumen. Minor secondary changes have, in other words, begun to appear. There are still no major warnings of catastrophe, but it has become likely that a more serious damage to brain or heart will follow in the next two to five years. Careful modifications of habit may still diminish risks and postpone the evil day, but the prognosis must now be more guarded.

In the third category a vascular accident affecting an important organ, a coronary or cerebral thrombosis or a cerebral hæmorrhage, has occurred, or the first symptoms of congestive failure have announced themselves. Perhaps Cheyne-Stokes breathing is noticed on the consulting-room couch or there have been attacks of nocturnal dyspnœa in threat of left ventricular defeat. The diastolic pressure has risen to 140 or 150. There are several hæmorrhages and white patches in the fundi. There is a heavy cloud of albumen. Periods of rest in bed have become necessary. Improvements are temporary and incomplete. Death within a year has become probable.

In the fourth category our patient is bedridden with heart-failure and œdema or the progressive mental deterioration of cerebral arteriosclerosis. There has been a fall in the systolic pressure, but the diastolic figure remains too high. Days or weeks or, at the most, months is the best forecast we can offer.

At each of these stages advice and treatment must be determined by the prognosis which we construct from a combination of clinical experience with pathological insight. At no stage is the construction of the prognosis merely an academic exercise. But how often is this pathological insight lacking and how many patients are worried into a quite unnecessary anxiety and ill-health because of this lack. The world is full of unhappy, careful middle-aged people who would have remained active for many more years had not doctors ascribed to a column of mercury a degree of prognostic reliability which it can never alone possess, and forgotten both their morbid anatomy and the importance of studying " the whole man."

CONCLUSION

I had almost omitted to mention prognosis as an academic exercise, so many lessons have I found for it. Let us add now that anything in our work which trains the senses and sharpens the wits compels discussion, invites analysis and excites interest also brings gifts to personality over and above the gifts of a general professional discipline. It helps to satisfy a hunger and to nourish clear thought and to foster that spirit of natural philosophy which should find a home in the heart of every keen physician. I would therefore commend to you the study of prognosis as a salutary exercise, as an individual adventure in consecutive pathology, and suggest for your serious consideration that the follow-up investigation, be it private or institutional, has many far-reaching contributions to make to medical knowledge and in the years ahead must become an integral activity of all hospitals and clinics.

Shall we also make a compact, you and I, that we will in future add a footnote on prognosis to every case-report we write ?

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

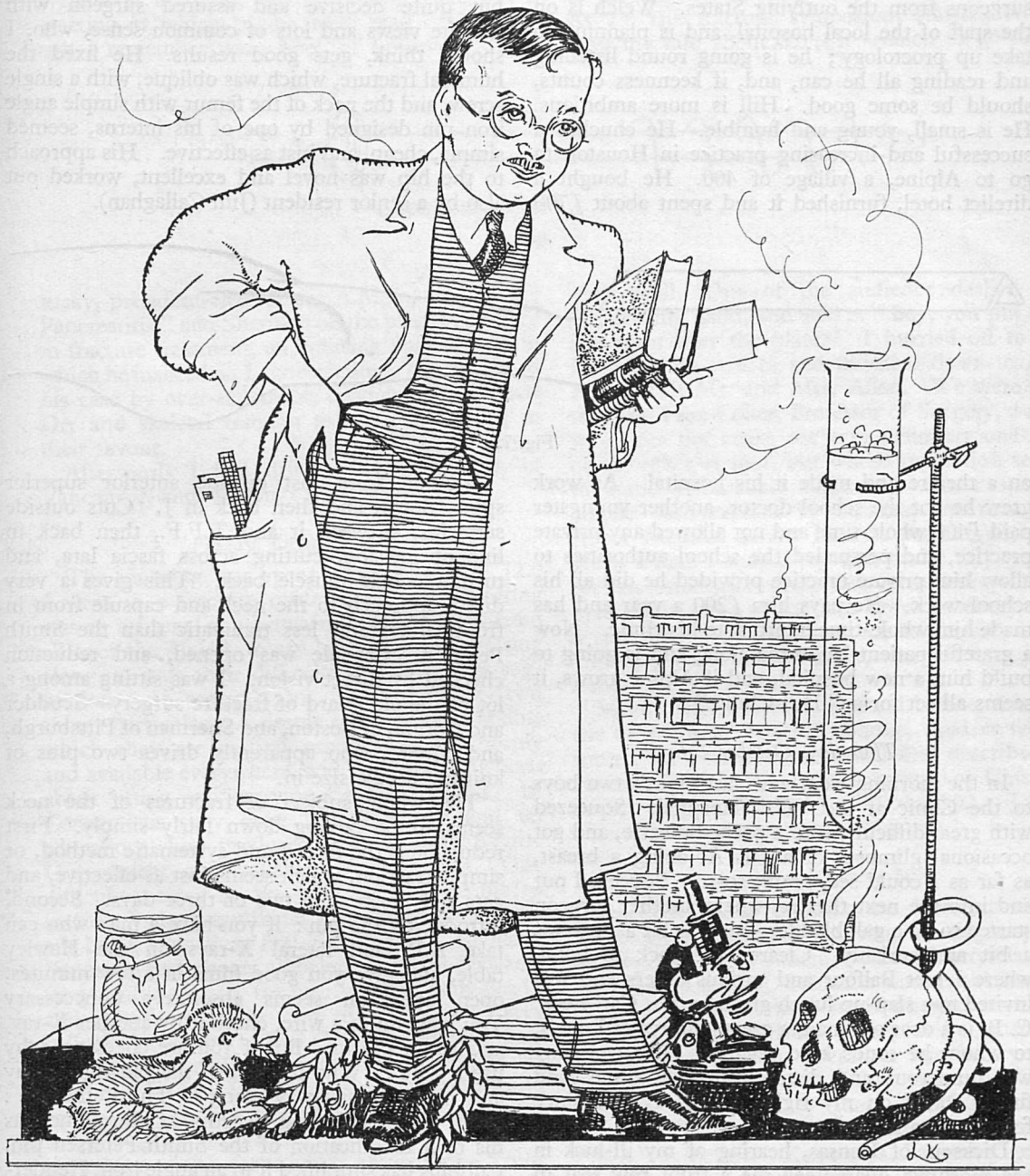
(*continued*)

Wednesday, October 27th

MORNING a visit to the Swift Stockyard. Pretty horrible.

Malted milk with Dixon, of Rochester, who speaks this evening. After lunch went to a discussion on post-graduate teaching, but the only man who was at all stimulating was Evarts Graham. At 4.0 I left this and paid a second visit to the Field Museum. I came back and was wandering about the hall wondering where to feed when I met Henderson, of the Mayo Clinic. He asked me to join a party at a hotel opposite the Stevens, a smaller, more exclusive, and probably much more expensive place. The dinner, with Willis Campbell, of Memphis, Tennessee, his wife and another lady, was excellent. Campbell is oldish, pretty quiet, a bit dyspeptic, and has a great reputation.

I went on to " You Can't Take It With You," the rage of New York—a very good light comedy that will probably come to London. I had bought an odd ticket, returned to hotel, and found it had been put in by a medical party on my left. Dr. Welch, of Houston, Texas, Mrs. Welch and Dr.



Hill, of Alpine, Texas; Welch and Mrs. in the thirties, Hill much younger. They were the type of people I was very anxious to meet, younger surgeons from the outlying States. Welch is on the staff of the local hospital, and is planning to take up proctology; he is going round listening and reading all he can, and, if keenness counts, should be some good. Hill is more ambitious. He is small, young and humble. He chucked a successful and increasing practice in Houston to go to Alpine, a village of 400. He bought a direlict hotel, furnished it and spent about £700 on a theatre and made it his hospital. As work grew he got the school doctor, another youngster paid £400 whole-time and not allowed any private practice, and persuaded the school authorities to allow him private practice provided he did all his school work. He pays him £200 a year and has made him whole-time internist to his clinic. Now a grateful patient has come along and is going to build him a new hospital, and if Alpine grows, it seems all set for a "Hill Clinic."

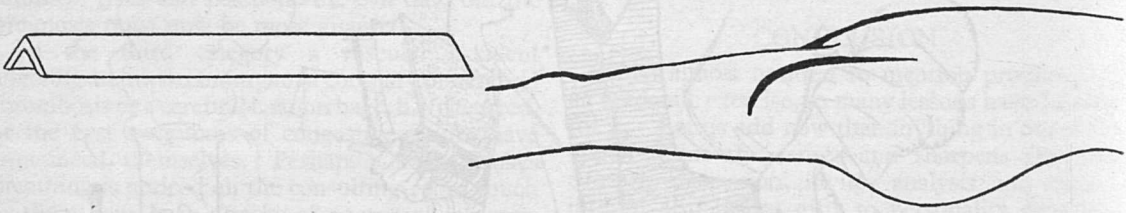


Fig. 72.

Thursday, October 28th

In the morning went with last night's two boys to the Clinic at the "X" Hospital. Squeezed with great difficulty into a packed theatre, and got occasional glimpses of a Dr. A. doing a breast, as far as I could see, pretty so-so. Squeezed out and into the next theatre, where another surgeon started to do a gall bladder—also, as far as it went, a bit amateurishly. Cleared off back to hotel, where I met Balfour and various others and was invited to a slap-up lunch given by Dr. Carl Beck. C. B. is a dear old man, a great admirer of Lane's, to whom he sends kind regards. The company was numerous and distinguished, and the food fine; David on my right, a man I have since forgotten on my left.

Dickson, of Kansas, hearing of my ill-luck in the morning, guaranteed me a front row seat in the afternoon. We went to Dr. Cubbins and had stalls at a light comedy. Cubbins is a six-footer, massively built with a bald dome head, always smiling, and affecting the humorous phrases and deliberate slow speech of the South. He did open reduction of a malplaced fracture of the surgical neck of humerus, and open reduction and fixation of a fracture of the neck of the femur. His technique is based on that of Lane, and he is a neat, but quite decisive and assured surgeon with definite views and lots of common sense, who, I should think, gets good results. He fixed the humeral fracture, which was oblique, with a single screw, and the neck of the femur with simple angle iron pin designed by one of his interns, seemed simple, cheap, and just as effective. His approach to the hip was novel and excellent, worked out also by a senior resident (Jim Callaghan).

Incision from just outside anterior superior spine, down, and then back in J. Cuts outside sartorius, between it and T.F.F., then back in line of incision, cutting across fascia lata, and turning whole muscle back. This gives a very direct approach to the neck and capsule from in front, and seems less traumatic than the Smith Petersen. Capsule was opened, and reduction checked by direct vision. I was sitting among a lot of the old guard of fracture surgery—Scudder and Cotton, of Boston, and Sherman of Pittsburgh, and Moore, who apparently drives two pins of knitting needle size in.

The whole subject of fractures of the neck seems to be boiling down fairly simply. First reduction; the forced and systematic method, or simple traction, which seems just as effective, and gets A.1 position in two or three days. Second, introducing the pin: if you have a man who can take A.P. and lateral X-rays on the Hawley table, and give you good films in a few minutes, open operation seems absolutely unnecessary You just run in a wire, check it by another X-ray, and run a pin in. But if you are checking, why use a wire? Why not put in the pin right away and check it half-way along? Third, the pin: every orthopædic man worthy of the name has his own modification of the Smith Petersen pin. Cubbins has simplified it to an angle iron, Henderson to a screw, Moore to two wires. Are we not working back to the simple screw of Arbuthnot Lane forty years ago, and has not Smith Petersen merely served to give the non-surgical orthopædic mind an excuse to recant and get back to surgery? I saw a screw to-day (in Toronto) that seems to

me to be the essential "it" of femoral neck surgery.

At 6.0 Cubbins gave a very excellent dinner in a room at his club, and afterwards there was a meeting at which papers were read. The only two I remember were Abel, of Louisville, Kentucky, president-elect of the A.M.A., on "Acute Pancreatitis," and Sherman on the place of surgery in fracture treatment, an amusing fighting talk in which he insisted on Lane technique, but weakened his case by over-statement, condemning Winnett Orr and skeletal traction as without a word in their favour.

Afterwards I had drinks with Schinbein, of Vancouver, and Wilson, of Toronto.

Friday, October 29th

The morning was spent packing, and at 12.0 I went to a fracture conference. This meeting was an informal one between representatives from all over the Union, to say how they were getting along, to state their difficulties, and to offer suggestions. It seems a lot is being done—two things particularly, a simple set of first-aid splints which they are getting produced very cheaply and available everywhere, and general instructions about lifting and carrying fractured spines. In Connecticut they have had literature and an educational film produced free for them by the Government, and available for distribution. One difficulty seems to be—who are the people to instruct? In many States the filling station staffs are being trained as first-aid workers. In many States the ambulances all belong to the undertakers (convertible to carry the nearly or the quite dead), and they are not very easy to persuade to carry splints; in others the Red Cross people have their own ideas and will not fit into a scheme run by the doctors. In San Francisco they have a series of emergency hospitals dotted all over the town. I am not quite clear about the system, but it is something of this sort: every emergency—motor accident, fit, cut wrist, perforated duodenal—is brought to one of these and gets diagnosis and first aid; after that he is either treated and allowed to go home, transferred to another hospital, or given the name of a private doctor to consult or a private hospital to go to.

I asked Hill to lunch, Welch having already gone, and gave him "Fractures in General Practice," as there was no point, right at the end of my trip, in carrying them round any longer. At 2.0 the fracture symposium started, and I gave my talk about 3.0; it seemed to go down quite well. One of the audience dashed up, gripped my hand, and said: "Boy, you put that one right over the plate." I hurried off to the Detroit train at 4.15 and travelled down to Ann Arbor with Mr. and Mrs. Allen. We were met there by Fred Coller, Professor of Surgery, a man who does not strike me very definitely one way or the other at first, but whose reputation seems to stand remarkably high and who has been largely instrumental in building up the Ann Arbor Medical School into its present position. He is a man I should say well under fifty, young for an American professor, with heavy-lidded eyes reminiscent of the late Lord Rosebery, and a sparing talker. He took me to the Students' Union, a most palatial place, where I was given a room for the night.

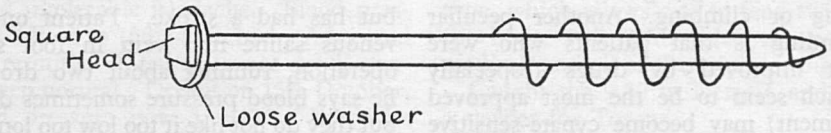


Fig. 73.

Memo. from Chicago, omitted before, that the use of strips of external oblique, used as fascial suture, for hernial surgery was first described in 1898 or 1899 by L. L. MacArthur, of Chicago. Said to be a paper in the *J.A.M.A.*, 1902. Trans. of surgical section at annual Meeting.

Saturday, October 30th

Fetched in the morning by Kahn, assistant neurological surgeon. Arriving at the hospital, he was met by old patient, a man of forty-six who had complained of headache and rapid loss of vision. He had retinal hæmorrhages, low urea excretion, but normal non-protein nitrogen. Blood pressure 256, operation late last year—bilateral Peet done by Kahn. Man has been working since January (not strenuous). Says headaches have gone, vision better, not as much "pep" as before. Kahn says that many get no drop in blood pressure at all, but symptomatic relief. His general line, and that of Peet, seems to be more "don't know how it works, we never know if it is going to work in any particular case, but it is always worth trying unless the risk is prohibitive, usually does some good, and often

puts them quite right again as far as they are concerned." They do not ever know or even have an idea what the effect on the blood pressure is going to be. It always takes some weeks or months to settle down. There is a moderate drop to start with; after this it usually mounts gradually finally settling 20 to 50 mm. below its former level, but it sometimes starts going down still further before settling or climbing. Another peculiar occasional finding is that patients who were formerly not improved by drugs (especially cyanates, which seem to be the most approved medical treatment) may become cynate-sensitive after operation though their blood pressure is unaltered. I saw a good many recent cases in the ward with Kahn before we went to Peet. They were all or nearly all remarkably young, several in the twenties; all were pleased, especially at losing headache, though the fall in blood pressure in most was not great.

They do a very careful examination beforehand, but not, I gathered, much in the way of vaso-motor tests, or at any rate they do not worry much about the result. They say these tests have been found to be no indication as to whether the splanchnic operation is going to be a success.

They have a general physician's overhaul. An ophthalmologist's report on the retinal vessels and all appearances. Tests of vision. Tests of hearing. (Why? Possibly in case operation may improve arterio-sclerotic deafness.) Orthodiagram of heart. Electrocardiogram. They do Newburgh's concentration test on the urine (implies doing without water for some hours, and testing highest specific gravity to which kidneys can boost the urine), urea clearance test, and non-protein nitrogen in the blood. All these tests and examinations are repeated three and six months after operation.

They operate on all cases under fifty provided the non-protein nitrogen is normal and there is no heart failure; otherwise they take all risks, and ignore retinal changes and low urea excretion. Their mortality is 3 per cent.

Peet.—Burly, cheery, assured, a bit brusque, not very anxious to discuss much, a bit short-tempered in the theatre—a surgeon rather than a scientist.

Patient is a woman of 49. Blood pressure in bed varies from 190/140 to 140/100; not higher, but has had a stroke. Patient on face. Intravenous saline into vein in foot started before operation, running about two drops a second; he says blood pressure sometimes drops to 0 (!), but they do not like it too low too long as they have had thrombosis of vessels in cord. Right side first. Vertical incision 5 inches long, inside outer border of erector spinæ. Has lead shots on vertebral spines in X-ray so as to be sure which is 11th rib, but even so feels 12th with finger after incision to be sure. Exposes rib well inside erector group, strips and excises 1½ inches of 11th. (Seemed much nearer mid-line than I was; probably safe for pleura.) Careful hæmostasis of every vessel in fat and muscle with diathermy before cutting. Nerve is about half an inch lower, and he leaves it alone. Cuts out intercostal bundle. Works in rather deep hole, where I can barely see, with lit retractor in dark room. Exsects great splanchnic from 12th ganglion level to 9th, putting silver clip on each end, then 11th and 12th dorsal ganglia and chain. Works hard to get 12th ganglion and has to strip diaphragm forward to reach it. Blood pressure fails 20 points; ephedrine given and it comes up again.

Left side same thing. Here the great splanchnic was lying right on the aorta, in a fatty bed. He says intercostal arteries and veins are always deep to the sympathetic in the thorax. No drop in blood pressure this side.

Leaves sewing up and hurries off to shoot duck and grouse 200 miles away.

Kahn took me into the wards again. First case

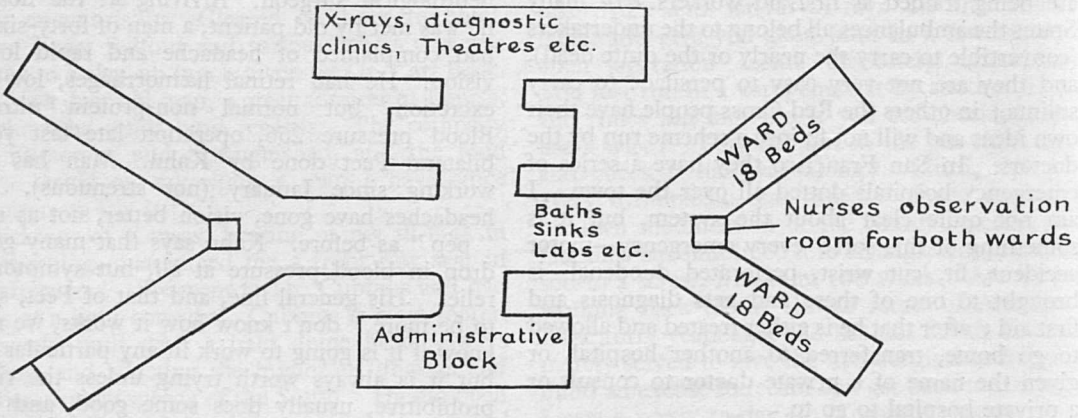


Fig. 74.

a coloured man of 44. Blood pressure 230/120 to 260/155. One retinal hæmorrhage. Cyanates give great symptomatic relief, but no drop in blood pressure. Operation 23rd October, 1937 (a week ago). Blood pressure afterwards 120/90, starting to rise a few days later.

Girl of thirty. Well till five months ago; now blindness and intolerable headache. Blood pressure 240/136, falling to 190/140 in bed. Advanced albuminuric retinitis. Urea clearance good, non-protein nitrogen normal. Operation 15th October, 1937. Blood pressure now 180/126; headache gone.

The general plan of the hospital is good.

In the afternoon I went round 18 holes of golf with a foursome—Allen, Coller and two others. Coller was the only golfer. I had a club to swing, but found that finger grip and wrist movements were quite insufficient. In the evening the Collers had a great party of the "help yourself" buffet type, which allows one to feed twice the number the house will hold. Half the party were non-medical, and all of them interesting.

Caught the 9.30 to Detroit, and there got into a sleeper for Toronto.

(To be continued.)

A Case of Anthrax

By A. C. Greene, Esq.

MR. R. T., a warehouseman of 56 years, was seen in the Front Surgery in the afternoon of October 25th, 1938, complaining of a sore on his chin which was mildly painful.

On the morning of Friday, October 21st, he cut a pimple on his chin while shaving. This gave rise to no immediate trouble, but the following day, while at work, it began to irritate, and he remembers rubbing it often during the day with his hand.

By the evening of Sunday, October 23rd, it was developing into a small sore, and he began to be a little worried about it. It was quite painless, however, and he noticed no other symptoms other than a slight loss of energy.

On Monday he covered it with dry lint and went to work as usual feeling quite well. In the evening he found that the sore had increased in size and was giving rise to a serous discharge; there was a slight "drawing" pain in it. Having seen pictures of anthrax pustules on notices and pamphlets given him at his work, he became anxious and resolved to seek medical advice next day.

On Tuesday, October 25th, the sore was again larger, with profuse serous discharge but very little pain. On examination in the Surgery he was a fit man with no constitutional disturbance. His temperature was 98.4° F. and his pulse 80. On the right side of the chin there was a circular sore about one inch in diameter. The centre was black, raised and firm to the touch. It was surrounded by an irregular zone of vesicles and pustules and was discharging profusely a serous fluid. Around this was an area of firm cutaneous œdema about three inches in diameter. The regional lymph glands were enlarged, tender and a little painful. The pustule itself was rather tender, but gave rise to little pain. There was no infraorbital œdema, and the lesion did not appear to be spreading with great rapidity. The mouth contained foul teeth, but no other abnormality. The other systems were normal and the urine had a specific gravity of 1008, containing no albumen or sugar.

The patient works in a warehouse in the Borough, and constantly handles the following materials both in the warehouse and displaying them to customers over the counter:—

1. *Bristles.*—(*a*) Chinese bristle ("Imitation China Bristle") imported from China; (*b*) Japanese bristle, bleached white. These are pigs' bristle mechanically dressed and purified. They are carefully wrapped in paper, branded with the maker's brand, and are regarded as being "fairly safe."

2. *Horse Hair.*—All this is imported, mostly from China. It is not packed carefully, and a recent consignment which he had been handling had been extremely dusty. He regarded this as the probable source of infection.

3. *Cocoa Fibres* and various "Basses" from Mexico. These are generally regarded as being quite safe.

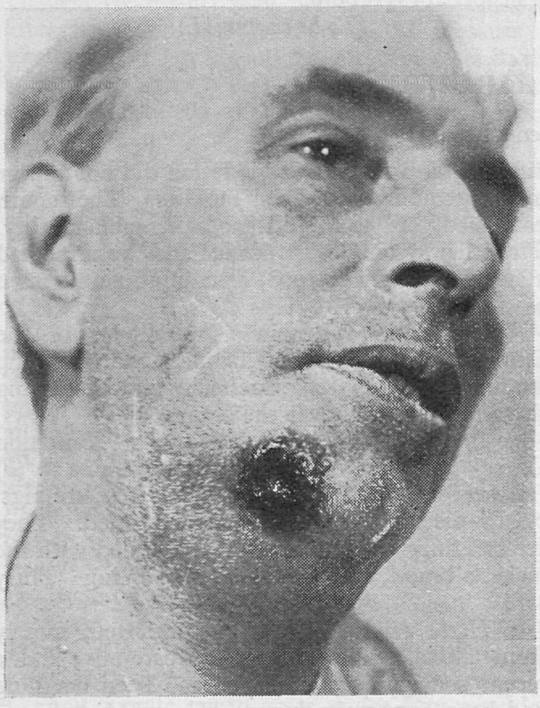
He has worked in his present job for eight years during which time there has been no case of anthrax among his fellow-workmen. He has not been in contact, outside his working hours, with any substance likely to infect him. He has had his shaving-brush for four years.

Stained films of serum taken from the pustules and vesicles at the periphery of the lesion showed *B. Anthracis* and *Staphilococcus Aureus* to be present.

At the outset it was decided to treat him with conservative measures rather than to excise the pustule. He was put to bed on full "barrier precautions." A blood culture was taken which later proved to be negative. Anti-anthrax serum

(Parke Davis) 60 c.c. was injected intravenously, followed by N.A.B. 0.60 gm. intravenously within an hour of being admitted to the ward. He was put on a mixture containing potassium citrate gr. 30 every four hours.

On the following day his temperature at one time touched 99.2° F. and his pulse was between 80 and 90. He was quite well in himself and a photograph of the lesion was taken. Serum 40 c.c. and N.A.B. 0.60 gm. were injected intravenously.



The lesion on the day following admission.

On October 27th he remained well with a normal temperature. Another blood culture was taken, which proved to be sterile, and a further injection of serum 40 c.c. and N.A.B. 0.60 gm. were given intravenously. The lesion had ceased to spread.

The next day the vesicles had disappeared and the necrotic centre had begun to separate. Serum 40 c.c. and N.A.B. 0.60 gm. were again given intravenously. The urine on microscopy contained pus and red blood cells, and a growth of *staphilococcus albus* was obtained on culture.

On October 29th, serum 40 c.c. only was given, and on the day after a final dose of serum 30 c.c. and N.A.B. 0.60 gm. were injected intravenously.

Since then progress has been uneventful and progressive. The man's face has now returned to normal, and the central slough has nearly separated, leaving a button-like scab which is discrete from the skin at the periphery but still attached centrally. The glandular enlargement has disappeared.

From information kindly supplied by the Medical Officer of Health, it appears that the Home Office Bacteriologist has reported that the infection was derived from the horse hair, which was of Manchurian origin and was very dusty indeed. The dust consisted almost entirely of anthrax spores. The other portions of the consignment have all been traced and destroyed by burning. No other cases of anthrax have been reported, which is perhaps surprising when the heaviness of the infection is remembered. It might well be argued that the inoculation of *B. Anthracis* into a cutaneous lesion is necessary before infection can occur, as many other persons must have handled the infected material.

There are two points of interest arising from this case. The first is the almost complete absence of pain with the lesion, which is unusual, for this is generally considerable. It appears that some Government authorities will not diagnose anthrax in the absence of such pain. The second point is the very slight constitutional upset accompanying this case, which in this respect is quite typical of the disease.

I am indebted to Mr. Grant Massie, under whom the patient was admitted, for permission to write up this case.

Guy's Musical and Operatic Society

The Concert given on November 22nd and 23rd, 1938

THE *élan* that inspires the Guy's Hospital Musical and Operatic Society is one of the more important elements in the life of the Hospital that is not directly concerned with the practice or teaching of medicine. The Society is nothing if not the essence of keenness, co-operation and interest, and it succeeds in bringing together nurses, students and others in a manner that is entirely admirable, and as no other society does. The success of its productions has always been notable—this year is no exception—and has always been its great justification, if such were needed.

This year two concerts were held in the Physiology Theatre.

The evening opened with a familiar Bach Suite, No. 2 in B minor, for flute and strings. This was perhaps the least fortunate choice of music in the concert, for the Suite, charming, delicate and characteristically Bach, is deceptively difficult. It is not exactly a satisfactory opening piece in that it demands the utmost confidence, the truest tempo and tone, and the closest attention to detail —so hard to expect at the start of an amateur concert, especially on a chilly November night in a hall that is conspicuous for its draughts. These handicaps were evident, but the players had the skill and courage to overcome them extraordinarily well, and Mr. Baxter is to be congratulated on a performance in which all the circumstances were against him, including, most noticeably, the strings.

The Suite was followed by what one thought, as it was being played, must be the outstanding performance of the evening. Mr. Claude Lee treated the audience to a rendering of the delightful Sonata for 'cello and piano by Delius that was remarkable for its beauty, its polish and the sympathy of its interpretation. Mr. Lee's success was made the more successful by his good fortune in having at the piano Miss Eileen Sambrook, whose musical gifts are widely known. The Sonata alone made the concert worth any trouble to visit. It was almost a pity that it was followed immediately by the Liszt Concerto, for there was scarcely time to contemplate all the pleasure it had given before one was swept off one's feet by the most accomplished and rapturous performance that one has had the privilege to hear at Guy's. An arrangement for two pianos of Liszt's Concerto in E flat was played by Miss Sibyl Evans and Mr. Paul Forgacs with a virtuosity that exceeded anything one had expected, and provided a wonderful exhibition of talent and technique.

The real *pièce de résistance* was the concert version of German's " Merrie England " with full orchestra and chorus. The principal parts were taken by Miss Dorothy Kealey (Bessie Throgmorton), Miss Esther Johnson (Jill-all-alone), Miss Sibyl Evans (Queen Elizabeth), Mr. John Jenkins (Sir Walter Raleigh), and Mr. William Greenwood (Earl of Essex). The occasion opened with a narrative, admirably spoken, by Miss Jean Torrens, followed by the full chorus singing " Sing a-down, a-down," one of the best parts of the performance. There came a series of episodes with solos, which included an extremely good quintet, a very sweet ballad of Bessie Throgmorton's, and a rousing song and chorus with Queen Elizabeth as the solo part, in which Miss Evans evoked with her charming voice tremendous applause from an appreciative audience. Mr. Greenwood stood out, too, by the quality and power of his singing. The other principals never attained the same heights as those two, but they were always pleasant and the chorus was ever at its best. The second part of " Merrie England " had not quite the gusto of the first, or perhaps it was that the hour was getting late and that there had been already so much to enjoy that it was difficult to keep up with it all. Every part of the performance was indeed exceptionally good, and the audience was deeply indebted to Miss Margaret Paterson, the conductor, to whose great ability, energy and enthusiasm the whole of this very well spent evening was due.

As a last word it should regretfully be mentioned that the attendance, though not the applause, was but a poor compliment to the excellence of the entertainment.

W. E. Y.

" The Wimps "

IT is not often that one has the opportunity to see a really talented amateur dramatic performance, so that I felt doubly lucky in attending the production of " Autumn Crocus " by that now notable company, " The Wimps," since it happened to be a play which I had been very anxious to see and never managed to during its recent very successful run in London. Had one known the matter of the play one might have been somewhat chary of seeing it acted by any but the most expert players, but one need not have feared, because " The Wimps," lacking, it is true, the style or the slickness or the finish of a company whose whole time is devoted to acting, succeeded in putting over a difficult, rather sentimental play with the utmost skill and conviction, so that I felt that for entertainment I had missed nothing in not having been at the original production.

An outstanding performance was given by Mr. Geoffrey Hooper, who took the leading part as Andreas Steiner, the man whose handsome exterior, winning accent and ingenuous manner brought happiness and tragedy to the delicious little Fanny Gray (aged 35, a schoolmistress, no previous affairs), admirably acted by Miss Emily Williams. The most remarkable study was provided by Miss Joan Mollison as the clergyman's

sister whose main occupation was a search for her lost underclothes and the gateway to freedom, whose head for heights and beer was as unsteady as her brother's moral convictions were firm. For the others, too, the hot couple, the experimental couple, the sexless teacher and the remaining smaller parts, there can be nothing but praise. It was the pleasantest evening for which I have the greatest gratitude.

W. E. Y.

Nursing News

THE Sale of Work held in the Nurses' Home on November 16th in aid of the Cosmo Bonsor Memorial Scholarship Fund was considered by all to be a great social and financial success. Below is the result up to date :—

	£	s.	d.
Donations from Past and Present Nurses and Friends	28	7	6
Approximate Amounts made at each Stall :—			
Past Members—Miscellaneous	46	0	0
Sisters—Household, Pottery (including gift of 120 lb. of Tea)	29	0	0
Staff Nurses—Children's	19	0	0
Fourth and Third-year Nurses—Cakes, Sweets	14	0	0
Iced Lady Cake Raffle	9	15	6
Other Cake Raffles	2	10	0
Second-year Nurses—Christmas Novelties	14	10	0
First-year Nurses—Toilet Requisites	14	10	0
Entertainment—Side-shows (including the Mile of Pennies)	31	0	0
White Elephant Stall	2	0	0
Flowers	1	11	0
Profit on Calendars to date	6	15	0
Raffles (including Bedspread)	11	0	0
Teas	15	1	0
	£245	0	0

It is hoped that the total will reach £250 when the remainder of the things are sold.

The Committee would like to thank most warmly all who helped to achieve this result. We would like to thank past and present Guy's nurses for filling the stalls with such attractive gifts. Parcels came from all over the world. We would like also to thank the Governors of the Hospital for granting the facilities for holding the sale.

F. T.

Correspondence

A New College

To the Editor of the GAZETTE

SIR,—In view of the strong feeling which exists among students of the Hospital on the desirability of erecting a new College, it is proposed to hold a short meeting for the purpose of initiating further action in the matter. It is hoped that all students will attend this meeting, which will take place on Wednesday next, December 7th, at 1 p.m. in the Physiology Theatre.

Yours, etc.,

L. Babrow
P. H. Birks
W. G. Cross
G. O'Gorman
C. Halamandres
R. C. Hallam
B. D. Johnson
J. R. Kilpatrick
J. H. H. Knight
R. U. F. Kynaston
L. G. Morey
K. O. Rawlings
T. W. Renton
J. M. Stoner
P. N. Swift
J. Wilks
R. O. Yerbury

Music

To the Editor of the GAZETTE

SIR,—I shall be extremely obliged if you will place the following project before your readers.

Briefly, its aim is to provide music of an interesting nature for the staff, nurses and students of the Hospital by means of gramophone recitals.

At present, no facilities exist in Guy's whereby lovers of music can satisfy their needs. The Musical and Operatic Society cater only for those who are able to sing, or play some instrument.

Unfortunately, the majority of us are, for obvious reasons, unable to take advantage of the excellent work now being carried on by that movement, and it is primarily to correct this anomaly that the above scheme has been evolved.

An instrument suitable for recitals (which, incidentally, will be given inside the Hospital) will cost £20, and of this sum £12 have already

been generously subscribed by the members of the Medical School Staff.

It has been suggested that students, and especially lovers of music, should contribute the remaining £8. A separate list has, therefore, been opened and students are invited to send in donations. These will be gratefully received and acknowledged in the *Gazette* at a later date. All sums of money should be sent to the undersigned.

Should the purchase of a gramophone be made possible through the receipt of the remaining £8, the instrument will be offered to the Musical Society for its use. If, however, the fund fails in its object, donations received will be returned.

The Dean of the Medical School, besides contributing to this project, has generously offered his entire library of records for use at the recitals. Other records, of a varied and interesting nature, have also been promised from various sources, and the programmes offered will, as far as possible, be compiled so as to suit the tastes of the audience.

It is intended to hold the recitals during a lunch hour, one a week, for the students, and at a convenient time and place for the nurses.

Yours, etc.,

BERNARD KUSTOW.

The Medical School,
Guy's Hospital,
S.E.1.

Sport

Rugby

Guy's v. Old Blues

(*At Honor Oak Park on Saturday, November 5th*)

THE Hospital met the Old Blues for the second time this season and were successful by 2 placed goals, 2 penalty goals and a try (19 points) to a placed goal and a try (8 points).

A. E. M. Wiggins was unable to play and T. W. Renton took his place in the back row; otherwise Guy's fielded the same side which did so well against Cambridge.

The Old Boys were nearly at full strength, and additional weight was given to the pack by the inclusion of H. A. Constantine, the Leicester forward, now with the Air Force.

In the first half the visitors had to face a glaring sun, and in the first minute Guy's took the lead when Plowman kicked a difficult penalty following a fine raid by the Hospital forwards.

However, the Old Boys quickly recovered from this early reverse, and after two efforts to drop goals (one only inches from its objective), they forced a five-yards' scrum, but offside spoilt their chance and Plowman found touch near midfield.

A beautiful piece of passing between Babrow, Dick and Steytler carried play from one end of the field to the other, and eventually Phillips received from Dick, but he was not quite fast enough and Fulford pushed him into touch a few yards out.

Another fine effort by Van Steytler nearly led to a score; after forcing his way through a crowd of players, he punted ahead, but Fulford managed to get back and kick the ball into touch, a second before Hanson got there.

Guy's were now playing confidently, and the visitors had to defend desperately to keep the Hospital away from their line.

Clever work by Halamandres gave Van Steytler another opportunity, and Fletcher carried on the movement, but a forward pass spoilt a good chance.

A little later Phillips made a run of forty yards, and punted over the full-back's head, but Fulford was too fast for him.

Although the Hospital forwards were not getting the ball so often in the set scrums, they were far superior in the open and ably supported the backs.

Guy's should have scored when Steytler and Babrow broke through, but Hanson, racing at top speed, failed to hold the pass and a scrum followed.

Offside against the Old Boys enabled Plowman to kick another goal, and immediately afterwards Hanson atoned for his previous slip by scoring a great try.

Receiving the ball just inside his own half and with little room to spare, he managed to elude the attentions of three defenders and, after a forty yards' run, flashed past the full-back and touched down near the posts, for Plowman to convert.

Near the interval Van Steytler made an opening for Dick, and the latter seized his chance and went clean through the Old Boys' defence, to score one of the best tries of the afternoon.

The visitors opened the second half with a dashing forward raid which took the Hospital by surprise, and Garrard touched down for a try too far out for Fulford to convert.

They kept up the pressure and nearly scored again, but one of their forwards lost the ball after he had crossed the line and Guy's were lucky to touch down.

Guy's recovered from these early shocks and Darke led the forwards in a great effort which carried them to the visitors' line.

However, they were checked for a time until Steytler again broke through in magnificent style, passed to Renton, and the ball eventually

reached Phillips, who crossed in the corner for Plowman to kick another fine goal.

In spite of this reverse the Old Boys stuck to their task, and Ross-Goobey was going through on his own when Dick came across and brought him down.

Fulford had bad luck with a penalty when he hit an upright, but after several fierce scrummages in the Hospital line, Mitchell crashed his way over for a try, and Fulford made sure of the kick at goal.

After the Guy's defence had been subjected to severe pressure, the Hospital recovered and in the closing minutes were clearly the better side.

Halamandres found it difficult to avoid the close attentions of Constantine and Ross-Goobey, the wing-forwards, but he managed to get out a good service to Van Steytler, and Dick and Babrow made repeated efforts to get through.

On one occasion Babrow won an exciting race for the touch-down, but the whistle had gone just previously for a forward pass, and with the last kick of the game Dick took steady aim in front of the posts, but just missed dropping a goal.

Team.—R. D. Plowman; J. H. Phillips, L. Babrow, R. C. S. Dick, J. M. Hanson; J. van A. Steytler, C. Halamandres; D. N. Fuller, H. F. Osmond, C. C. Vidot, J. C. Bulstrode, P. Fletcher, C. S. Darke (Captain), T. W. Renton, P. D.'O. Kolesar.

Guy's v. London University

(*At Motspur Park on Wednesday, November 9th.*)

GUY'S registered their fourth success of the season when they gained a narrow victory over a strong University side by a penalty goal and 2 tries (9 points) to a placed goal (5 points).

Kent claimed the services of R. C. S. Dick and Breen-Turner took his place in the centre, and J. P. Crawford reappeared for the Hospital and played a sound game on the right wing.

The score just about represents the run of play, and, although the Hospital had many more chances than their opponents, the University tackled splendidly and gave little away. They had the misfortune to lose the services of one of their best forwards, Patura, who had to retire just before the interval after receiving a nasty kick in the face.

Splendid work by Osmond enabled Guy's to control most of the set scrums, and J. W. Lewis at the base of the scrum made many openings for the backs, but, although the University three-quarters were inferior to the Hospital's quartette, keen marking caused the Hospital backs to hurry their final passes and many openings were wasted.

L. Babrow was mainly responsible for the first score, when he broke through a narrow gap in the centre and Breen-Turner finished off the movement with a good try, which Plowman failed to convert.

The University replied with an excellent try by Fletcher, and the same player added the goal points.

After the interval Plowman gave Guy's the lead when he landed a difficult penalty goal and Crawford finished off a bout of passing by scoring a try near the corner flag, which was not converted.

It was an interesting game, marked by grand tackling and, considering their handicap, the University did well to keep the score so low. Unfortunately, C. S. Darke, the Hospital skipper, fractured his thumb and will be unable to play for two or three weeks.

Team.—R. D. Plowman; J. M. Hanson, J. S. Breen-Turner, L. Babrow, J. P. Crawford; J. van A. Steytler, J. W. Lewis; C. C. Vidot, H. F. Osmond, D. N. Fuller, J. C. Bulstrode, P. Fletcher, T. W. Renton, C. S. Darke (captain), G. Morris.

Guy's v. Birkenhead Park

(*At Honor Oak Park on Saturday, November 12th*)

BEFORE one of the best attendances recorded at Honor Oak Park for some months, Birkenhead retained their unbeaten record when they defeated the Hospital by 3 tries (9 points) to nil. It was a terrific struggle, and in holding the all-conquering Northerners to so modest a victory Guy's accomplished their best performance of the season. They improve in every match, and with a little luck might have won. The tackling on both sides was magnificent, and credit must be given to the Hospital for their splendid defence, especially during the first quarter of an hour when they were subjected to the severest pressure with all of the Park's redoubtable outsides against them.

Birkenhead Park fielded twelve of the Cheshire team which defeated Lancashire so handsomely the week previously, but at the last moment Guy's had to rearrange their back division as Van Steytler was unable to play on account of a damaged knee. They also had to take the field without their captain, C. S. Darke, who fractured his hand earlier in the week, Halamandres, Phillips and Forbes, all nursing injuries. However, their deputies played exceedingly well, particularly T. W. Renton, a back-row forward, and J. W. Lewis, who was the equal of Bibby at scrum half.

In the first half Birkenhead had the advantage of the wind and endeavoured to sweep Guy's off their feet before they had time to settle down.

They soon established a footing in the Hospital's 25, and stayed there for some minutes, but Guy's repeatedly checked their attacks with the ferocity of their tackling.

A mistake by Knowles enabled Guy's to transfer play to their opponents' territory, and in the raid which followed, the ball was sent over the line and Hanson missed the touch-down by a split second.

Guy's intercepted a passing movement near their 25, and kicked upfield. Crawford gathered, cross-kicked to Hanson, who made a glorious run before he was grassed five yards out. Several fierce scrummages followed, and the Hospital forwards dribbled over, but, luckily for the Park, Billington managed to kick it out of play.

Hancock, Knowles and Bibby then combined in a dangerous movement, but Crawford tackled Knowles as he was going through and Dick found touch. A little later Guy's were awarded a penalty in a favourable position, but Plowman just failed to land the goal.

The Park made several efforts to set their usually smooth-running back division in action, but devastating tackling by Babrow, Dick and Crawford prevented them from making much ground.

However, the visitors continued to be dangerous and were soon hammering away at the Hospital line. Holden got within a yard of his objective when he was pushed into touch near the corner flag, but a penalty brought relief to Guy's, and, following up hard, Wiggins and Vidot caught the full-back in possession and eventually forced him to touch down.

It was a ding-dong struggle and the game fluctuated from one end of the field to the other. Near the interval Guy's thrilled the crowd with a grand attack in which forwards and backs supported each other admirably.

In another thrilling race for the touch-down Hanson was just beaten by Downes, and then both Dick and Crawford tried to drop goals. Guy's pressed hard and just before half-time they were awarded another penalty, but Plowman was unable to get it over the bar.

Within three minutes of the restart, the visitors took the lead; following a five-yards' scrum, Bibby sent the ball smartly to Knowles and, running diagonally, he eluded the defence for a brilliant try near the posts, which Bibby failed to convert.

Guy's replied with a glorious movement which carried them half the length of the field. However, they were sent back immediately; a little later they had a shock when Crawford failed to gather a pass a few yards from the line, but Dick got back and saved behind the posts.

Towards the close of a magnificent game, Birkenhead went further ahead when, following a combined passing bout, Holden finished off the attack with a fine try.

Shortly before no-side, when Guy's tried desperately, but without luck, to reduce the lead, Hancock picked up the ball from a loose scrum and, running splendidly, put the issue beyond doubt with a final try.

Both teams gave a grand exhibition, and the crowd did not hesitate to show their appreciation both at the interval and when the whistle sounded for no-side.

The Hospital forwards have come along splendidly, and their play is a vast improvement on last season. The team shows great promise. Barring accidents, they should develop into a really good combination.

Team.—R. D. Plowman; J. M. Hanson, R. C. S. Dick, L. Babrow, A. B. Baxter; J. P. Crawford, J. W. Lewis; D. N. Fuller, H. F. Osmond, C. C. Vidot, P. Fletcher, J. C. Bulstrode, A. E. M. Wiggins, T. W. Renton, P. D'O. Kolesar.

Guy's v. Rosslyn Park

(At Old Deer Park, Richmond, on Saturday, November 19th.)

AFTER their fine display against Birkenhead Park, Hospital supporters had visions of Guy's returning to their former glories, but their anticipations were rudely shattered when the Park beat them on their merits by a placed goal and 3 tries (14 points) to nil.

It must have been a big disappointment to R. C. S. Dick, who was playing his last game of the season, to see his side give such a mediocre performance, and it is difficult to understand the form on this occasion compared with the week previously.

Lack of training appeared to be the Hospital's trouble, and this was particularly noticeable in the second half, when they failed to withstand the terrific onslaught of the Park's excellent team work.

Both packs had a great tussle, with the honours fairly even before the interval, but after the breather the home forwards, who were much heavier than Guy's, obtained the upper hand and made sure that their backs saw plenty of the ball.

Hanson, who had been selected provisionally for Surrey against the Eastern Counties, started off on the right wing, but, being left-footed, he found that this position did not suit him, and he soon changed places with Crawford.

In the early stages, the game was not very interesting, as both sides adopted spoiling tactics, and, as a result, the play was patchy. Guy's started off promisingly and pressed for the first

few minutes, but after that they did not show to advantage and they had one or two narrow escapes when Huxley tried to kick two penalty goals from long range.

Just before half-time, Halford made a lightning run along the touch-line and cross-kicked beautifully for Rossington, who gathered in his stride and ran in for a try which Cooper failed to convert.

Guy's were compelled to defend after the interval and, following several stoppages for minor injuries, Comyn burst through the defence at top speed with Huxley in support, and the latter finished a glorious run with a try, which Halford converted.

A little later, Comyn broke away again and, running diagonally, sent Halford over in the corner.

After this setback Guy's retaliated and, having gained a footing in the Park's 25, they did everything but score. Several movements broke down through bad finishing, and eventually Hartley, a particularly fast centre, went clean through the Hospital defence and sent Haddon-Cave over in the corner for their last try.

The Hospital pack, although much lighter, held their opponents commendably, but the team as a whole were lethargic and lacked fire.

Team.—R. D. Plowman; J. M. Hanson, L. Babrow, R. C. S. Dick, J. P. Crawford; J. van A. Steytler, J. W. Lewis; D. N. Fuller, H. F. Osmond, C. C. Vidot, P. Fletcher, J. C. Bulstrode, G. Morris, T. W. Renton, A. E. M. Wiggins.

Guy's v. Gloucester

(*At Honor Oak Park on Saturday, November 26th*)

AGAINST the wind and sun, Guy's held their own and at half-time the scores were level, but immediately after the interval they were handicapped when Babrow tore a leg muscle and eventually the visitors won by a placed goal, 2 penalty goals and 2 tries (17 points) to a penalty goal and 2 tries (9 points).

It was a thrilling game and there was scarcely a dull moment from start to finish. As usual, Boughton, the international full-back, proved to be the stumbling-block to Guy's, and his kicking was a feature of the match.

Once again the Hospital pack played magnificently and, except for a short period in the second half, more than held their own. Kolesar and Fletcher were outstanding and were prominent in nearly every attack.

Kynaston, who was preferred to Plowman at full-back, was sound, but he was unsuccessful with three fairly easy penalty kicks which might have made all the difference to the result.

Both Hanson and Crawford were in good form on the wings, and Breen-Turner fitted in admirably as partner to Babrow. Van Steytler was a tower of strength, but Lewis was overshadowed by the brilliance of Parfitt at scrum half.

Gloucester started in great style, and for the first few minutes Guy's had to defend desperately. Their line had two or three narrow escapes, and on one occasion the visitors got over but were recalled for a forward pass.

A magnificent breakaway by Van Steytler ended in Guy's taking the lead. Securing the ball near his 25, Van Steytler eluded Meadows and Bown, and passed to Breen-Turner; the latter, taking his pass at top speed, transferred the ball to Hanson, who outstripped the defence to score between the upright and corner flag. Although no-charge was given, Kynaston failed to add the goal points.

The visitors retaliated with some fierce forward rushes which the Hospital did well to keep out, but after forcing them back to midfield, Guy's conceded a penalty, and Boughton kicked a magnificent goal, the ball just skimming the cross-bar.

Gloucester caught the Hospital napping in a line-out, and Meadows appeared certain to score, but Kynaston brought off a wonderful tackle and cleared.

However, Gloucester used the wind to advantage, and Walden repeatedly sent the Hospital back to their own 25, following some excellent kicks to touch.

The Citizens took the lead when Boughton kicked a penalty goal for offside given against Lewis, but Kynaston levelled the scores with a penalty awarded for obstruction.

Then followed the finest movement seen on the ground for some time, which ended in Hanson scoring as brilliant a try as anyone could wish to see.

Crawford and Van Steytler started the passing well inside their own half and from the extreme right the ball was passed with amazing rapidity to Babrow, Breen-Turner, Kolesar, Fletcher, and eventually to Hanson. The latter easily rounded the full-back, but again Kynaston failed to land the goal.

Just before the interval, Gloucester drew level again. In fielding a punt by Walden, Crawford slipped on the greasy ground, lost the ball, and Mabbett sent out a quick pass to Mustoe, who scored.

Babrow, Breen-Turner and Crawford started the second half with a grand movement which carried them from one end of the field to the other, but although Boughton saved Crawford's cross-kick, Gloucester were penalised and Kynaston was given a grand chance to kick a goal, but missed.

Soon afterwards, Babrow was injured and

eventually went to full-back, but Guy's kept up the pressure and after several scrums near the goal-line, Van Steytler tried to drop a goal, but sliced his kick.

From a long throw from a line-out Hook obtained possession and nearly scored, but Kolesar saved the situation.

A few minutes later, Parfitt broke through, cross-kicked and the ball bounced luckily for A'Bear, who gathered it in his stride and touched down between the posts for Boughton to convert.

The heavy going was trying for both teams, but the Gloucester pack revelled in the mud, and another grand raid found Manning unmarked, but again Crawford made a splendid recovery and crashed his man a yard or two from the line.

In spite of his injury, Babrow started another movement which should have ended in a score. After breaking through, he cross-kicked, but there was no one to take advantage of the opoprtunity.

The last few minutes were full of excitement. Following a great run by Meadows, Bown scored an unconverted try for Gloucester, and then Kolesar, following up a kick ahead by Van Steytler, caught Boughton in possession, but after a terrific struggle, the visitors cleared.

Then Hanson thrilled the crowd with an electrifying sprint along the touch-line. As he approached the full-back he punted ahead, but just as he reached the ball, it rolled out of play.

The game throughout was of a high standard and, but for the unfortunate injury to Babrow, Guy's might have won. However, the Hospital will be the first to congratulate Gloucester, whose President is an old Guy's man—Dr. A. Alcock.

Team.—R. U. F. Kynaston; J. M. Hanson, J. S. Breen-Turner, L. Babrow (captain), J. P. Crawford; J. van A. Steytler, J. W. Lewis; D. N. Fuller, M. F. Osmond, C. C. Vidot, J. C. Bulstrode, P. Fletcher, T. W. Renton, A. E. M. Wiggins, P. D'O. Kolesar.

Guy's Hospital Clubs' Union

"BLUES" AND "HALF-BLUES"

AT the last meeting of the "Blues" Committee, the following "Blues" and "Half-Blues" were awarded, subject to the approval of the Clubs' Union Council:—

Rugby Football Club.—
Full Blues: L. Babrow, J. P. Crawford.
Half-Blues: P. D'O. Kolesar, R. U. F. Kynaston, L. G. Morey, R. D. Plowman, G. P. A. Sechiari, C. C. Vidot.

Cricket Club.—
Full Blues: A. C. C. Hughes, J. H. Knight, H. A. Thomas.
Half-Blues: A. V. Hurst, F. W. Rushby.

Boat Club.—
Full Blues: P. C. S. Campion, J. P. Henry, P. A. Lane Roberts, E. R. Roseveare.

Swimming Club.—
Full Blues: J. P. Crawford, J. Ronchetti.
Half-Blues: F. M. Dunn, F. H. Jowett, J. A. Powell.

Lawn Tennis Club.—
Half-Blue: J. Symmons.

Rifle Club.—
Full Blues: G. E. Barnard, J. H. Capon, L. H. G. Handley, N. S. Harris, M. Wilks, J. R. D. Williams.
Half-Blues: C. M. F. Fiducia, J. H. G. Halliday, H. C. Miller, T. L. Reeves.

Golf

THE Hospital lost to St. Mary's Hospital in their semi-final match of the Cup, which was played at West Hill on Thursday, November 17th, in glorious autumn weather.

St. Mary's have a strong team this year, so strong that Guy's were only able to win three matches. All the foursomes were won by St. Mary's, although there was a disastrous collapse in two matches which seemed as good as won by Guy's. St. Mary's, however, showed their superiority in the singles by winning five matches.

Results were as follows:—

FOURSOMES

Guy's		*St. Mary's*	
J. C. Ritchie and T. N. Praat	0	D. I. Stirk and R. H. Thorp (5/4)	1
J. Drury and T. H. Eustace	0	W. R. May and S. J. Stephenson (2/1)	1
S. A. Marsh and S. G. McCallin	0	R. W. Morrison and H. G. Percy (1 up)	1
W. James and J. G. Mathieson	0	W. M. Scott and O. T. Alcock (7/5)	1
Total	0	Total	4

SINGLES

Guy's		*St. Mary's*	
W. James	0	D. I. Stirk (7/5)	1
J. C. Ritchie (6/5)	1	R. H. Thorp	0
T. N. Praat	0	W. R. May (3/1)	1
J. Drury	0	S. F. Stephenson(4/3)	1
T. H. Eustace	0	R. W. Morrison (5/4)	1
S. A. Marsh (5/4)	1	H. G. Percy	0
S. G. McCallin	0	W. M. Scott (3/1)	1
J. G. Mathieson (2 up)	1	O. T. Alcock	0
Total	3	Total	5

J. C. RITCHIE,
Hon. Secretary.

Hospital Information, etc.

Notice

NUFFIELD HOUSE

RESIDENT MEDICAL OFFICER

Applications are invited for the post of Resident Medical Officer in Nuffield House.

The appointment carries a salary of £300 per annum, and, in addition, Board and Lodging is provided at the College. The appointment is for a period of six months in the first instance, and may be renewed on application.

The accepted candidate will be required to take up his duties on 1st March, 1939, and applications should be sent, not later than the 14th December, 1938, addressed to :—

B. Lees Read,
Clerk to the Governors,
Counting House,
Guy's Hospital,

from whom copies of the Standing Orders for the Resident Medical Officer in Nuffield House may be obtained.

DENTAL SCHOOL

Applications are invited for the whole-time post of Dental Research Fellow, the appointment to begin as soon after 1st January, 1939, as possible. Preference will be given to a biochemist who is prepared to undertake work on dental diseases. The appointment will be for two years in the first instance, with the possibility of reappointment. The stipend will be at the rate of £400 per annum.

Applications, accompanied by the names of three persons to whom reference may be made, should be submitted not later than 31st December, 1938, to the Dean, Guy's Hospital Medical School, S.E.1, from whom further particulars regarding the appointment may be obtained.

Pass List

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

L.D.S.

FINAL EXAMINATION.

November, 1938.

Surgery.

F. Butterfield
G. E. Clarke
J. C. Coe
G. W. Dorr
F. J. H. Edmonds
J. B. Gayes
N. S. Harris
L. M. Irwin
R. C. Jones
A. Kinghorn
R. A. E. Keeler
P. S. Marshall
L. G. Morey
R. H. F. Pearce
R. D. Plowman
T. N. Praat
D. L. Power
A. H. Reis
J. C. Ritchie
R. K. Roberts
A. J. Rogers
F. W. Rushby
A. Southwell
J. A. R. Smit
F. N. Stares
J. Symmons
H. W. Walker-Smith
G. M. A. Whittall
H. A. Woodward

Dental Surgery.

O. B. Balean
E. K. Breakspear
W. F. A. Butcher
J. C. Coe
E. P. Cutler
F. J. Edgell
F. J. H. Edmonds
K. A. Irish
L. James
K. P. Liddelow
D. J. Lyon
P. S. Marshall
A. Middleton
R. D. Pett
A. M. Platt
L. J. Price
A. J. Rogers
F. W. Rushby
D. J. R. Shannan
J. A. R. Smit
R. S. Stevens
J. B. Wilkes

UNIVERSITY OF OXFORD.

The following Degree has been conferred :

DOCTOR OF MEDICINE.

C. A. Boucher.

UNIVERSITY OF CAMBRIDGE.

The following Degrees have been conferred :

MASTER OF ARTS.

G. D. C. Channell.

BACHELOR OF MEDICINE AND SURGERY.

T. L. Barbour.

ROYAL PHOTOGRAPHIC SOCIETY

M. C. Hart awarded Plaque for Film of Removal of Tonsils and Adenoids in their Annual Competition.

Papers by Guy's Men

Soothill, V. E. The selection of a population. *Public Health*, 1938, lii, 42.

McGregor, H. G. The convulsive tendency in children. *Med. Pr.*, 1938, cxcvii, 426.

Pearson, R. S. Bruce, and Nevasquez, S. de. *Brit. J. Ven. Dis.*, 1938, xiv, 243.

Changes of Address

Dr. J. Chamberlain, Barricade, Devenish Road, Sunningdale, Berks. (*Ascot* 969.)

Births

CLARKSON.—On November 26th, 1938, at 27, Welbeck Street, to Barbara (née Mutch), wife of Patrick Wensley Clarkson—a son (Gerald William Wensley).

ATKINS.—To Gladwys, wife of Hedley Atkins, on October 27th, 1938, at 27, Chester Terrace, Regent's Park, N.W.1—a son (Christopher John).

EDS. { C.H.E. / W.E.Y.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

IT is said with a certain justification that sad happenings rarely occur singly, and that old saying is born out at the present time when only a few days separate the retirement of two members of the Senior Staff. We are, a short time after Mr. Hughes, to lose our Senior Ear, Nose and Throat Surgeon, a figure who to hundreds of us must seem inseparable from the daily life of this Hospital, a figure who has most happily combined the virtues of an eminent surgeon with those of a most human of human beings. Mr. Mollison has, for nearly thirty years, been a powerful though modest and unassuming influence in our affairs and has, by his example of hard work, punctuality and thoroughness, been a source of inspiration to all who have come into contact with him either in clinical or parochial matters. He has by his manner and teaching made himself well remembered and beloved by a countless number of dressers and house surgeons who have had the privilege of working with him; he has stimulated many of them to specialise in his branch of surgery. He has brought into his theatre and out-patient department much of his artistic talent making the commonplace operation attractive to watch, and gaining something of the reputation of a conjuror by his practised use of those most ticklish of all instruments used in the examination of the nose and throat. We have all stood in awe in his theatre watching mallet strike gouge, our interest held throughout partly by his dainty manipulations, partly by his cheerful commentary, all the time wondering that his hands know more of his immediate position than our eyes could ever tell us.

We have been engrossed in watching "Molly" hypnotise a difficult patient into docility, with a wave of the hand apparently abolish all reflexes capable of initiation in the upper respiratory tract, and then proceed to demonstrate the obscurest corners of the throat. It is typical of him that he never failed to give the credit for the success of these manœuvres to the dresser's preliminary training of the patient. One always suspected that "Molly" could, if he wished, play a tune on the vocal cords. A picture that many people will remember is of him sitting in the glare of his standard lamp, head thrown back, peering at an amazed dresser from under his head-mirror, a smile on his lips and delicately held in forceps a fish-bone, a bone that the dresser had confidently thought existed in the patient's imagination only. To learn his subject from him was to have delightful lessons in the perfection of technique and the sure, apparently simple, methods that are the attribute of the master.

He has taken a most lively and generous interest in many aspects of hospital life, and has created for himself an immense reputation as the ideal chairman and as the possessor of more knowledge of local affairs and management than any other here now. To one who has watched his clinical work it is easy to imagine those calmly persuasive methods that soothe a trembling patient being used with equal effect at a meeting, or that infectious truly humorous smile smoothing away difficulties. The very word "mollification" might well have been coined from his use of these invaluable gifts.

Mr. Mollison must relinquish his duties here with a feeling of great satisfaction that he has served his hospital well and truly both as a servant within its walls and as an ambassador without. We regretfully witness his retirement and thank him humbly for his years of service to the student, to his profession and to Guy's itself; we are

content in the knowledge that he will realise that his work has been appreciated to the full. We admire him as a surgeon and as a diagnostician, we admire his skill and his learning, we remember him as a stimulating teacher, but we need no excuse for saying that we shall miss him most as a cheerful, humorous, friendly spirit with whom it is a pleasure and a privilege to be associated in any capacity whatsoever.

AN outstanding event in the last week has been the revival of interest in the fate of the College. To the dismay not only of a large number of students, but also of others to whom the future of the Medical School is closely bound up with the attempt to improve student accommodation, it had recently become apparent that unless drastic steps were taken all the hopes that had been raised, all the trouble that had been taken, were in imminent danger of being drowned in the turbulent waters of the general finances of the Hospital. It had begun to seem that the students were not, after all, particularly concerned as to whether there was to be any rise in the standard of living in the College or not. The very poor response to the Questionnaire was believed by some of those in authority to indicate that the agitation for improvements arose from a small, disgruntled, but energetic minority. The fallacy of this impression was shown with the greatest emphasis at a meeting held in the Physiology Theatre on December 7th. It was a meeting of students organised by students for the purpose of demonstrating that interest in the College was very much alive and that considerable anxiety was felt lest the question should be dropped, and to issue a resolution to the School Council. The meeting was singularly successful; Mr. G. O'Gorman, Mr. James Brown and Mr. R. U. F. Kynaston addressed over three hundred and fifty students on the broad outlines of the problems and their solutions, and were heard with much sympathy and enthusiasm.

The demonstration was conspicuous for the serious and orderly manner in which it was attended and has provided a remarkable manifestation of unanimity of opinion among the students. The following statement was issued at the end of the meeting and presented to the Dean of the Medical School after more than 600 signatures had been obtained :—

"We, the undersigned students of Guy's Hospital, beg to record our opinion that the present College premises are inadequate to provide the necessary residential and social amenities. Furthermore, we feel that the reputation of this Hospital as a leading Medical School must inevitably suffer if it fails to provide such facilities in a manner comparable to those obtaining in other schools of similar standing.

"We can see no serious obstacle at the present time to launching an appeal to old Guy's men and others interested in the welfare of the School. In our view a considerable sum would be raised by this means, which would form a substantial part of the money required to build a new College.

"We also wish to record our willingness to contribute to any fund that the School authorities might see fit to inaugurate, according to our individual means."

WE regret to announce the death of a very old Guy's man indeed, Henry Gould, M.R.C.S. Eng., L.S.A., who has died at Margate in his ninety-second year. Dr. Gould, who qualified in 1868, was until the day of his death always alert and active and was renowned locally for his amazing stamina as well as for his kindly and generous nature. After leaving Guy's he practised in Clapton, where he held the post of police surgeon, until his retirement from active medicine thirty-five years ago. He leaves a widow, Mrs. Amy Gould, as his sole survivor.

THE Residents' Ball will be held at Grosvenor House on Friday, March 10th, 1939. Mrs. R. Davies-Colley has kindly agreed to be hostess. Sidney Lipton and his Band will play.

WE take this opportunity of wishing all our readers a Happy Christmas. You have all had a trying year, and if you take our advice you will throw yourselves into the Christmas festivities with a good heart and forget for a while the troubles and worries that surround you. Again we say a Happy Christmas to one and all.

Au Revoir, Mr. Mollison !

MOLLISON, Hughes and I came to Guy's on the same day in October, 1901. Mollison had been elected an Exhibitioner of King's after gaining a First Class in the Natural Science Tripos, and had stayed an extra year in Cambridge to take the second part. We all three had the inspiring experience of dressing to Mr. Jacobson. Mollison had the further privilege of being not only Mr. Jacobson's last house-surgeon but also the first house-surgeon to Sir Arbuthnot Lane on his election to the full Staff. He thus had the unique experience of

Photograph by Barbara Davies-Colley

W. M. MOLLISON, C.B.E., M.Ch.

being house-surgeon both to the greatest teacher of surgery and to the greatest operative surgeon that Guy's has produced in the last fifty years.

Mollison was one of the first four out-patient officers, having been specially chosen for the appointment, though he had applied for assistant house-surgeon. His fellow-residents showed their appreciation of him by electing him their President. He became a demonstrator of anatomy and quickly gained the Fellowship and the Cambridge M.Ch. Shortly afterwards he succeeded Mr. Eason as Warden of the College, where Cameron and I spent a couple of happy years with him till we had to seek other quarters when we married.

In 1906 he was appointed clinical assistant to Mr. Steward in the Throat Department. In 1910 Mr. Turner, who had succeeded Mr. Fagge as surgeon in charge of the Ear Department, resigned, and it was decided that in future the appointment should be held by a specialist instead of a general surgeon. Mollison was the obvious man for the post and was duly elected. He spent six months in Vienna, Berlin and Freiburg as Durham travelling Scholar, and embarked on his career in otology and laryngology probably better equipped in physiology, general surgery and anatomy than any man who had hitherto taken up these specialties.

1912 Mr. Steward resigned his appointment as surgeon to the Throat Department. It was at first intended to keep the two appointments separate, but fortunately the wiser course was adopted of combining the ear and throat departments, of which Mollison and Mr. Layton were the first chiefs.

In the course of years Mollison came to be regarded as one of the leading spirits in British laryngology and otology, as shown among other ways by his election successively as President of both of these sections of the Royal Society of Medicine. As one of the original members of the Visiting Association of Throat and Ear Surgeons of Great Britain, of which Mr. Layton and Mr. Woodman were the founders, he helped to make the work of British laryngologists and otologists known and appreciated on the Continent, at the same time rescuing the profession at home from becoming too insular. A first-class diagnostician and surgeon, his influence has spread far afield, as he has helped to train many laryngologists who hold appointments in other London hospitals, the Provinces and the Dominions.

Many years ago at the end of a long day of golf, Dr. Newton Pitt remarked to Mollison, who was playing with him, that he felt a funny sensation in his legs, which he thought must be what people referred to when they said they were tired. It would appear that Mollison was equally unfamiliar with fatigue from the tireless manner in which for thirty years he has spent many hours seeing out-patients and operating on his days at Guy's, generally without any adequate interval for lunch. This may also account for his having chosen a remote corner of Cornwall for his country cottage, to which he runs down for occasional week-ends, when most of his colleagues consider a quarter the distance as sufficiently far from London.

Students and house-officers who are familiar with his activities in the Throat and Ear Departments as surgeon and teacher, do not realise that this represents only half of the good work he has done for Guy's. Always interested in the administration of the School and Hospital, he has been a perfect chairman of the Medical Committee and School Council since Mr. Rowland's death in December, 1933, and on not a single occasion has he allowed any private or public engagement to prevent him from presiding.

In spite of spending as many hours in the service of the Hospital as the most active of his colleagues, he has found time to apply the benefit of the lessons learnt at Guy's to a large private practice, and has filled his few spare moments and insufficient holidays with golf, tennis, music, painting and a variety of other hobbies. With all his hard work and many interests he has remained wonderfully youthful, and has hardly changed in appearance since the day I first met him thirty-one years ago.

As surgeon, teacher, administrator, and, above all, as friend, Mollison has made a remarkable position for himself at the Hospital. His popularity is such that old Guy's men returning from different parts of the world never fail to search out for "Molly," and his colleagues, assistants and students will feel that Guy's is hardly the same place without him. So we do not say, "Good-bye, Mr. Mollison," but "Au revoir," for we hope that we shall often in the future see his familiar figure in the Colonnade and the Park.

A. F. H.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

An Appreciation

MAJOR HUGH DAVIES-COLLEY, O.B.E., F.R.C.S., R.A.M.C.

By Major St. G. E. Harris, O.B.E., M.D., R.A.M.C., Specialist in Otology, Rhinology, and Laryngology, Aldershot Command; Surgeon, Cambridge Hospital.

TO those who knew him Davies-Colley is almost an irreparable loss not only to themselves but to the Army and the Aldershot Command in particular. For over twenty-three years he devoted himself to the interests of the Cambridge Military Hospital, Aldershot.

He was a man of the finest integrity, of great intellectual powers, general ability and sound judgment. His surgical skill was an example to all other surgeons, his attention to detail and strict observance of modern aseptic methods was a lesson to all in the performance of any operation. He never spared himself in any way, day or night, for many years in giving to those in need of it the benefit of the profound knowledge he had of his profession. It was a delight to watch him while he was operating.

He did not hesitate to censure those who had not brought to notice any serious case, or those who by faulty technique or neglect had not done what was best for the patient or in the interests of the Army or the Cambridge Hospital.

If one were in any difficulty there was no one who would be more helpful. Many surgeons who came to the Cambridge Hospital have been very grateful to Davies-Colley for the teaching in operative technique, the method of dealing with a case and the differential diagnosis thereof which they learned from him.

He was specialist in urinology and specialist in advanced operative surgery for many years in the Aldershot Command.

It was a great pleasure to all of us when we read in the *Gazette* of June, 1932, that he had been honoured with the decoration of Officer of the Order of the British Empire (Military Division).

I have known him for over twenty-three years. We both joined the Army on the same day as Temporary Officers, and I have been almost daily associated with him for the past twenty years.

He had a wonderful personality and was beloved by all who really knew him; I thought the world of him, and feel I can never adequately say enough for him—my sense of loss of a real friend and colleague is very deep.

It was obvious to all his friends for some time that his health was failing and that he was handicapped by lack of strength and robust health. Despite this he continued to give his best on all occasions in the Department at the Cambridge Hospital, to which he was so devoted.

Though he has passed on, his work lives, and his name will be remembered with gratitude by all ranks in the Army for the attention and help with operative skill so freely and unsparingly given to them in their need.

Recent Advances in the Treatment of Gonorrhœa

A Clinical Lecture delivered at Guy's Hospital on Monday, 12th September, 1938,
by V. E. Lloyd, Esq., M.C., M.B., B.S., Director, Venereal Diseases Department, Guy's Hospital.

GENTLEMEN,—I want to talk to you to-day about the most recent advances in the treatment of gonorrhœa. As some of you are aware, particularly those who have been doing work in the V.D. Department, various new chemotherapeutic preparations have been on trial during the last two or three years.

Until about three years ago the treatment of gonorrhœa had changed very little, I suppose, from what it had been during the previous twenty years. During that time we were constantly trying various antiseptics which promised to be advances in the treatment. New chemicals were constantly being produced and tried out for gonorrhœa. We used antiseptics containing mercury, preparations of silver, dettol, amyl-meta-cresol, oral therapy with pyridium and neotropin, also new dyes such as flavine, auramine and mercurochrome. All these we tried in local or parental treatment, resulting perhaps in a little improvement, but on the whole it is fair to say that very many new preparations were adopted for clinical trial either with enthusiasm or with cynicism, and were in the end relegated to the background within perhaps a year or two. Vaccine therapy, now in use for many years, has never lived up to its early promise.

Throughout this period the treatment of

gonorrhœa was very laborious and rather heart-breaking. The great stock-in-trade for the local treatment had been for very many years solutions of potassium permanganate, which, as you are aware, have really very little antiseptic effect. Its value as an antiseptic as judged by such tests as the Rideal-Walker is small; on the other hand, mercury perchloride by the same tests has a high antiseptic value. Yet the results with potassium permanganate are infinitely better than those with mercury perchloride.

Towards the end of the period of which I have been speaking we reached a certain disillusionment with antiseptics applied locally. We felt that they were of little use in the treatment of gonorrhœa because the tissues were able to tolerate such a small concentration that the antiseptic value of the chemical compound which actually reached the bacteria was probably very low. I think there is no doubt that potassium permanganate acts in some other way than as an antiseptic, and because of that it has held its position all these years as the favoured local remedy in the treatment of gonorrhœa.

About 1935, Domagk, who had been working on animal experiments, carried out investigations on mice which had been infected with the hæmolytic streptococcus. He treated them with various substances, amongst others with a complex sulphonamide, which, when he published his results, was given the name of prontosil. Prontosil, of course, is only a proprietary or trade name. This German investigator found that the anti-bacterial effects of the substances in the hæmolytic streptococcal infections was very marked. Hitherto no known remedy had been adequate to reduce the extremely high mortality in hæmolytic infections in mice. But when prontosil was used the mortality rate fell to a relatievly small figure.

The original prontosil was a rather insoluble red substance, and was produced in tablet form in Germany for clinical use. Within a very short time it was tried in England. I pass round a card on which I have mounted one red tablet of the original prontosil and below this an ampoule containing 5 c.c. of a solution of the second prontosil. In this hospital I am afraid we are not precise in our references to the prontosils.

The original prontosil, as I have said, was insoluble. It had to be given in tablets, and obviously one cannot give tablets to very ill patients who are unable to swallow or who are subject to vomiting. The search went on for something more soluble, which could be given by injection, and presently the second prontosil appeared. As soon as this happened the original prontosil, the insoluble substance issued in tablets, was renamed "prontosil red." The second prontosil in solution was also a red dye, but of very different formula from the original prontosil red, and received the name of "prontosil soluble."

There is now no such drug as plain prontosil, nor has there been since 1935, so when people talk about "prontosil" they are using a name which belongs to three different drugs, and I, for my part, do not know which one they are talking about. The original prontosil red tablet is now out of date, and I imagine is rarely used. In the dispensary just now it took us half an hour before we could discover the remains of a tube with four tablets in it to show you at this lecture. When practitioners say that they are giving patients prontosil it is most unlikely that they are referring to the original prontosil red tablet.

The original work of Colebrook and Kenny at Queen Charlotte's Hospital will be familiar to you. They showed the marked virtue of prontosil red and prontosil soluble in puerperal septicæmia.

This discovery, of course, was welcomed all over the world, and in a short time these sulphonamides were found to have a beneficial action, not only on the streptococcal conditions, but on other conditions, particularly those caused by the meningococcus. The effect on the pneumococcus was found to be rather slight.

It is of considerable interest that, though sulphonamides did not affect in the slightest infections due to *streptococcus viridans*, in particular bacterial endocarditis, it had a marked effect on the meningococcus, and this led to a great awakening of interest in the possible treatment of gonorrhœa by these preparations. Just about this time biochemists and clinicians all over the world had been trying to discover how these sulphonamides worked, and what was the active radical in these compounds. It was discovered in France that these two sulphonamides were excreted in the urine in the form of a compound which is now known as sulphanilamide. This substance has a relatively simple chemical formula as compared with prontosil red or prontosil soluble :—

The constitutional formula of sulphanilamide (p. amino-benzene-sulphonamide) is indicated above.

Naturally all were interested in the part which this sulphanilamide played in the treatment of infections, and it was promptly tested out in streptococcal infections of mice, rats and rabbits. To the surprise of those concerned it was found that this breakdown product was not only remark-

ably effective in these infections, but was equally effective with the two prontosils, and very soon it was accepted that sulphanilamide resulting from the two prontosils on breaking down was the antibacterial agent. Therefore in France and in England this substance, sulphanilamide, was promptly manufactured and made available for streptococcal conditions. There are many advantages arising from the use of this plain substance. It is easier to make and it is infinitely cheaper. I will not say that it is less toxic, but it is no more toxic than the other preparations.

By this time a large group of chemists in Germany had found that their prontosils were a back number, and thereupon they began to turn out plain sulphanilamide and called it prontosil album. This substance is not any special discovery of the German chemists at all, but is plain sulphanilamide. It is now manufactured in many countries, and here in England it appears from different drug houses under various names, *e.g.*, sulphanilamide, sulphanilamide-P, colsulanyde and streptocide. All these and others are sulphanilamide. To call all sulphonamides prontosil is rather like taking a whole group of motor cars and calling them all " Mercedes."

When we got to this stage in the experimental work, sulphanilamide was soon used clinically in streptococcal and meningococcal infections with marked success, and later employed in the treatment of gonorrhœa. This preparation was found to have the most dramatic effect in gonorrhœa as compared with previous methods of treatment. In the majority of cases of gonorrhœal urethritis the response is really very remarkable. There is often an abrupt and complete cessation of the discharge within two or three days. The urine at this time may show a little haze, due to pyuria, and there may be a few urethral flakes. But in the majority of cases the urine clears entirely within three to ten days. Many a patient having lost his discharge so speedily, and having no further symptoms, has reason to think that he is cured within 48 hours of the application of the drug. That, of course, constitutes a danger, for the patient may stop taking the tablets, and in reality, although the symptoms disappear, two or three days' treatment with this preparation is not enough to stamp the disease out entirely. In consequence, if the patient gives up treatment at so early a stage, there are likely to be relapses. That was what we found about eighteen months ago when we first took up this treatment. The patients returned with relapses. After employing sulphanilamide in the Venereal Diseases Department for some months, however, we arrived at a method of treatment which gave us our best results. This was the use of sulphanilamide in doses of 3 grams a day for two weeks, the dose then being reduced to $1\frac{1}{2}$ grams a day for another week. We found that it paid us to continue with the irrigation with permanganate, the chief reason being perhaps that this was the only way to keep the patient attending regularly under our care. Otherwise the patients were so easily satisfied with the effect of these tablets that they just disappeared. If they were instructed that they must undergo irrigation of the urethra as well they were more likely to complete the treatment. After six or eight months' experience we settled down to the scheme of dosage I have just mentioned.

I expect you know that there are certain disadvantages with sulphanilamide in respect of toxicity. The conditions that count most in a venereal disease department are just those toxic effects which hit the man who is still following his ordinary employment. The case is very different with the use of sulphonamide for severe septicæmias in hospital. There the patients are extremely ill, and therefore when mild toxic effects, such as headache, depression, anorexia, and so forth supervene they add little to the patients' burden, and in the reports they are scarcely mentioned. But with our patients, who are at work, the occurrence of headaches, slight dizziness, and mental depression or confusion may make a great deal of difference, and we have to be careful to avoid them if we can—although, of course, they are not dangerous to life. The most interesting effect is the cyanosis, which is due to sulphaemoglobinemia or methaemoglobinemia. This is a rather startling condition. I might refer you to a poster now being shown in the London tubes presenting a gentleman wearing morning dress and a top hat and beautifully turned out. Where he is supposed to have been and where he is going I do not know, but he exhibits a perfect picture of cyanosis due to sulphanilamide.

The other toxic effects that are important are various types of dermatitis. These are particularly interesting because generally there is an additional factor that comes into play. The sequence is usually sulphanilamide plus sunlight. The condition occurs in the summer months, principally during a holiday at the seaside and sun-bathing. It is a solar dermatitis, limited to the face, the neck and arms, or the exposed portions of the body. The appearance is somewhat like that seen in scarlet fever. A number of patients whom I have seen with this condition are not seriously ill, but it is a troublesome dermatitis, lasting about a fortnight, and, of course, the drug must be omitted. Occasionally a more general and severe dermatitis may ensue.

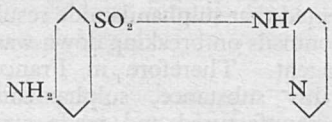
Another well-known toxic effect is drug fever. Some of these patients suddenly show a temperature rising perhaps to 103 or 104 degrees, but they show no signs of extension of gonorrhœa, *e.g.*, abscess formation or endocarditis. The only other clinical condition sometimes seen with this drug fever is an ulcerated throat. It is in such cases that a remarkable drop in the number of white cells may be found, and sometimes a complete agranulocytosis. There have been a few fatalities associated with sulphonamides, and in most of them there has been a complete agranulocytosis. Therefore, as we feel our way along in the application of new drugs to an old disease, toxic effects gradually come to light, and it takes some time to stabilise our position.

Early last year another drug made its appearance from Germany, namely, a di-sulphone, known as Uleron. This was presented as an efficient drug in cases of gonorrhœa and in staphylococcal conditions.

We tried out this drug in the V.D. Department and found that we did not get the same promising results as we had been getting with sulphanilamide. We treated, I suppose, twenty or thirty cases, after which we dropped the use of the drug. But other clinics kept on with Uleron in order to try to get better results. I do not know exactly for how long they carried the dosage, but the result was that in some cases a severe peripheral neuritis ensued. Nevertheless, this drug has a certain popularity.

This particular drug raises the very interesting question as to the part which body immunity plays in the successful action of these drugs in gonorrhœa. It was found in Germany, being first brought to light in the case of Uleron, that it might be better to wait at least a fortnight or three weeks in order to allow the gonococcal infection to develop the humoral response with immune bodies, and then, at the end of that time, to come in hard with this drug Uleron. That is a favoured method of treating the disease in Germany, and is followed by some workers in this country. One waits until a certain amount of immunity has developed and then gives a short hard " knock " with the Uleron. If that is ineffective, the drug is stopped and a period of another two weeks is allowed to elapse and then the procedure is repeated. This is usually referred to as the " Stoss " method.

This year there has come into being another British addition to this series of sulphonamides. This particular preparation, which is giving us our best results, is so new that it has not yet got a fancy name. It is usually referred to as T.693, or M. & B. 693. It is not a very complex sulphonamide, and contains the sulphanilamide radical, as may be seen below :—



2 (p. amino-benzene-sulphonamido) pyridine.

The medical staff of the V.D. Department at this Hospital were the first to use this substance clinically. It had not previously been used at all in human subjects and as a guide to dosage we only knew how much a mouse could take before it died. Therefore we had to feel our way cautiously with this new drug and keep a sharp look-out for the toxic effects, if any. We eventually found that about 3 grams a day orally was tolerated fairly well and gave excellent results in gonococcal conditions. The results with this drug are definitely superior to those obtained with any of the other sulphonamides. The initial apparent cures of gonorrhœa within the first ten days have been as high as 80 or 90 per cent., whereas with sulphanilamide they have varied from 50 to 70 per cent. There is no doubt that this particular compound represents a great advance in the treatment of gonococcal infection. In men with acute gonococcal urethritis this preparation T.693 has proved amazingly successful. We are also trying to develop treatment by injection, but we have not got very far with it yet in gonococcal infections.

With regard to the treatment of women, in the first place we get far fewer women in the early stages of gonorrhœa, and therefore I cannot speak of percentages with the same assurance. But we have had some two dozen women on this treatment, and the effect is obviously good. The effect of the drug is dramatically shown in the intractable condition of gonococcal vulvo-vaginitis in children, from quite small infants up to girls of eight or nine years of age. This is an infection that has practically defeated us for years. Using local treatment, bathing, silver salts, and vaccines, we have been able, after many weeks of arduous work, to control the disease to a certain extent, but in many cases with these methods there has been a relapse, and I have known cases go on for two or three years with repeated relapses. It is one of the most difficult conditions to deal with. When we come to the use of sulphanilamide in this condition we find in some cases fairly prompt response, with the clearing up of the discharge and the disappearance of the inflammatory signs. But in the case of this newest drug, T.693, the effect of the tablets in most of these children is

magical. Cases that have been affected for months as well as recent cases yield in quite a wonderful way. The signs of inflammation clear up, the discharge is no longer present, and films made from the vulva and vagina in these children demonstrate a complete absence of gonococci, sometimes within 24 hours of this treatment, and in quite a large number of cases within 48 hours. There is no doubt a most remarkable and immediate effect with this compound on the gonococcus.

To go back for a moment, we might inquire how these drugs work. I am now speaking of the whole group from the original prontosil to the present T.693. In actual test-tube experiments it has been known since 1935 that these preparations have no direct antiseptic action on bacteria in the test tube. But there are many remedies efficient enough in the human body which do not work in the test tube. When it was realised that it was the sulphanilamide radical in the prontosil that was the responsible agent, the biochemists attempted to demonstrate its action *in vitro*, but they found that they could not do so, and it appears impossible *in vitro* to prove any bactericidal effect and very difficult indeed to prove any such effect in the blood-serum which is infected and incubated in slide-cells. But it is quite obvious that there is a definite effect which we may describe as bacterio-static—in other words, a delaying effect on the rapid multiplication of these bacteria. These preparations are able to restrain the growth of streptococci, and the remedial action is no doubt due to that circumstance.

Some very queer things have been noted about this bacterio-static effect. The effect in slide-cells in which hæmolytic streptococci have been implanted, when the serum contains minute quantities of sulphanilamide, is of great interest. Very often there is at first no apparent effect on the growth of bacteria, on the contrary they multiply rapidly for the first six or seven hours, notwithstanding the presence of this drug. Then, when the bacteria get to enormous numbers, after perhaps ten hours, they will suddenly begin to fade out, and the fading out may be complete in 24 hours. We do not know why at certain stages of growth the bacteria become directly susceptible to the drug. Some workers have thought, chiefly by their observations on the pneumococcus, that the effect has something to do with the solubility of these drugs in the fat of the capsule of the pneumococcus, for the drugs are remarkably soluble in fat. There seems good laboratory evidence to suggest that they are soluble also in the fatty envelope of the pneumococcus. How they act on the gonococcus we have no idea. There is no animal which we can submit to useful experiment. There is no experimental work, therefore, to show how the drug acts on the gonococcus. Nevertheless we have some little information as to how the drug acts in streptococcal conditions. It is certain that it has a bacteriostatic effect, and before very long we shall begin to find out exactly how the effect is produced.

Fleming, of St. Mary's Inoculation Department, has done a great amount of work with these slide-cells on blood from patients who have taken T.693. On incubation with added streptococci and pneumococci he has again shown this remarkable bacterio-static effect, but even so has thrown no light as yet on the reason why at a certain stage of the culture or a certain age of the bacteria they suddenly fade out. There is some sort of accumulative effect which is at work, but it is proving very difficult to demonstrate. Fleming found that the anti-bacterial power is a property of the serum and that the efficiency of the leucocytes is not increased.

You will see that there have been remarkable advances in the chemotherapy of gonorrhœa in recent years, and at last we have a method of treatment which is proving extremely satisfactory in this intractable condition. I do not suggest for a moment that the progress in chemotherapy will end with what has so far been devised. We may all look forward in the future to further remedies becoming available—remedies which will be much more potent and be applicable to many other diseases than the one with which we have been concerned in this lecture.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(*continued*)

Sunday, October 31st

Arrived at Toronto, through scenery exactly like I have woken up to after every sleeping-car journey, at 8.40 a.m. Met by Graham, who had arrived an hour beforehand from Montreal with a bad cold. He drove me back, and I had a shave, bath and complete change, after a good breakfast. Family consists of a boy doing engineering at Harvard and a girl of about fifteen. Graham went to bed for the day after breakfast, and Mrs.

Graham took me to see Niagara Falls, a journey of 90 miles, but on their concrete roads not much over two hours. With us were Dr. Harris (Sympathectomy in poliomyelitis to produce bone lengthening) and his wife. The road lay along Lake Ontario, across the end near Hamilton, and along a ridge of limestone that forms the barrier over which the Niagara river falls. Along this ridge are monuments marking the site of a series of battles in which Canada finally beat the Americans in 1812—one of many phases of history on which my mind is completely blank.

We crossed a canal that brings ocean-going ships from Lake Ontario to Lake Erie, by a species of bridge new to me—two towers on which the bridge section is hoisted to the top like a lift. Then over a small but very deep canal that takes water to a power station. Then on to the Falls themselves. At first they are a bit disappointing. There are two separate falls, the American and the Canadian, with a wide space of island and cliff between, so that the total effect is greatly spread out, and each fall is wider than it is high. However, the height is considerable—say 150 feet, and it soon gets you. The Canadian Falls are in every way the better : broader, forming a wide horse-shoe, so that the waters cascade towards the middle and send over a greater volume. There is a continual roar, and towers of white mist go up in a column into the air from each fall. It was a magnificent sunny day, so that we saw them at their best. Standing on the wall beside them, two complete rainbows were seen on the spray; the inner or normal rainbow has its red peripheral, the outer one its red central.

Niagara, of course, is an immense source of power. Electricity is so cheap that the Grahams leave lights burning in all the rooms day and night. They are on one of the first distributing systems to be installed, and the engineer put in a 25 cycle (? 25 per sec.) current, thinking that it could be transmitted over long distances with less loss than the 40 cycle. The result is that all lights are constantly a-flicker. I thought that mine had a loose connection till I found that every light in the house was the same.

The banks of the Niagara were crowded with factories, and everybody came in to draw off water for power. Now they have appreciated that the Falls are a national scenic asset, and a magnet for tourists, and they have an international agreement limiting the amount of water that may be drawn off. The amount now must be about the limit, for everywhere below the Falls water gushes out in torrents from tunnels at the bottom of the cliff and from arches under huge generating stations, while the flow of water by the rightful channel is fairly thin. People have been over the Falls in a barrel, but the water now seems to pour, not direct in the whirlpool, but on to the rocks below, and I think any future hero would lose his life unless he first bribed the water companies. In addition to limiting the water used, they have got rid of factories on the water's edge and they now have nicely laid-out park and gardens on each side of the gorge.

In addition to looking at the Falls, you can go in the " Maid of the Mist," a rickety small steamer that goes up the rapids close to the falling water, but that retired to hibernation last week; and you can go under the Falls. We chose this. You don complete oilskins and gum boots, and are taken down in a lift through a shaft in the rock, to a tunnel cut through rock parallel to the Falls. A series of galleries lead out to the rock face, and from there you can peer at the huge cascade coming down over you. The upper layer of rock is very much harder than that below it, so that the Falls are always very much overhung, and the water comes down perhaps 20 feet in front of the gallery.

We had lunch in the Rainbow Restaurant of the General Brock Hotel—high above the Falls. On the way back we drove down beside the rapids. About a mile lower the current has hollowed out a huge circular basin about 190 feet high and about a third of a mile across. Here the water whirls round, with a vortex in the middle into which logs are sucked. A wire railway runs across it, and I took a trip in this for a better view, but could not persuade any of the others to join me. The drive home was in the dark.

Monday, November 1st

Went along after breakfast to the Toronto General to see Gallie, who was doing a ward round.

1. Fracture of neck of femur : fixed Smith Peterson pin eight weeks ago, now seems firm in good position.

2. Woman of 58. Fracture of neck of femur has been nailed a year ago at another hospital. Pain as soon as she walked. X-ray looked lovely, but stereoscopic showed that pin was right behind head into acetabulum, and fracture was not reduced.

Pin removed; traction; X-ray, X-ray just brought up wet, apparently showed lovely position, both ends healthy, no evidence of track of screw. Points for discussion :—

a. It looks nice, but till stereo or lateral are seen, there is no guarantee that position is not still as is was when pegged a year ago.

b. What to do? If position is good, probably another pin entered lower down the shaft than

the last, to avoid old track. If not, will one be able to bring neck forward, or will it need an open operation? Apparently Gallie is optimistic about union in old fractures, however late, except those in which head is dense, suggesting sclerosed dead bone. The decalcified heads have a good blood supply, and will recalcify.

3. Intertrochanteric fracture fixed with pin. Here the trochanters were not split, and the patient a very old lady in whom he feared immobilisation. He knew it would unite anyway, but by pin he was able to get her sitting and moving in bed, and home in a week. In the ordinary way they keep them in bed two to three months, but no spica.

I gather he generally reduces by traction, checks position by X-rays, and uses Watson Jones wire and pin, but closed method.

4. Scaphoid—a case of old fracture with symptoms suggesting semilunar displacement. Gallie says Murray is getting excellent results by grafting. Drills hole through both fragments by approach from anatomical snuff box, and puts in small peg cut from tibia.

5. Gastric ulcer. We saw a number of cases, and talked round the old problem. They seem to be much more optimistic about medical treatment than we are, and use the duodenal tube a lot for treatment. They say gastric ulcer is very rare here, and almost unknown among native-born Canadians.

6. Gallie operated on a case of supposed stone in the common bile duct. His assistants had already done a right paramedian rectus retracting incision, all ready for peritoneum to be opened. He came on really dense adhesions, omentum to liver, extending all over its visceral surface. In separating he made a hole, or rather uncovered a defect in the gall-bladder wall, and got in a sucker till all the escaping bile was removed. Enlarging the hole, he got out a large bird's-egg gall-stone, black, covered with knobs, but no facets. He felt in foramen of Winslow and could feel nothing in line of ducts. Very wisely on account of massive adhesions everywhere, he left gall bladder alone, for time being at any rate, just putting a tube into the hole.

7. Back in the ward saw several cases, including a difficult lesion of diagnosis—? ulcer near œsophagus, ? carcinoma. Chief item to my mind was another young surgeon, *Wookey*, who has two more unpublished carcinomas of the œsophagus alive after excision. One I saw in process of having a new œsophagus made. I was very struck by the excellence of the grafts with which he had covered long tension slits—thick Thiersch grafts in which all the hair survived. He finds Blair's suction blocks (I have a leaflet about them) for keeping the skin flat makes it very easy.

His first thing is a tube gastrostomy, turned up from anterior wall to skin over sternum. (? Man's name who invented it.)

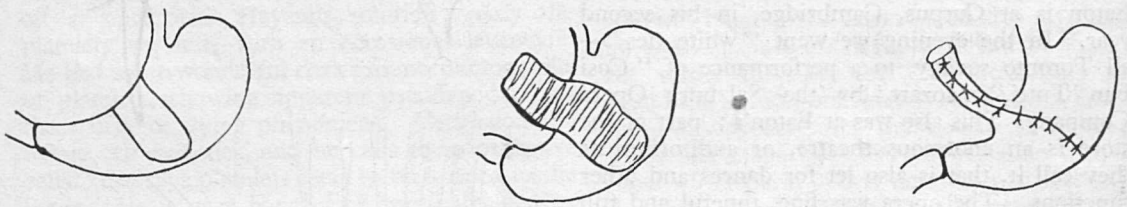


Fig. 75.

At second stage he first dissects out œsophagus from neck, puts a silver loop round it, and closes wound temporarily.

He then makes a long incision in 8th *right* intercostal space. No preliminary pneumothorax. Divides few ribs behind to get wide exposure. Essential step is division of azygos major vein where it arches over root of right lung between ligatures. When it is cut the whole mediastinum can be pushed to left, the œsophagus comes to the surface, and it can be freed in continuity right up to the neck. This he learned in post-mortem dissection, and it seems to me to have solved the trick; we shall be tackling carcinomas of the œsophagus as cheerfully as hernias. He ties œsophagus, cuts with cautery, invaginates lower end, ties finger stall over upper end, brings out into neck, and lays stump in undermined tunnel.

They have a very good hospital bed, the Simmons. Back raise and knee wedge are done in the wire mattress by turning two handles at the side that fold under when not in use. The lower feet are in tubes inside the legs, and the foot of the bed can be blocked to any height by pulling out feet and sticking pins in holes in the tubing.

We had lunch at a club—a fork lunch, with most of the doctors. Mackenzie, the neurologist, is highly thought of. He is a little sceptical about the value of operation for hypertension.

After lunch I went with Graham to the Medical

Institute—a big consulting block that the Toronto men have built for themselves, and which already pays handsomely those who put capital in it. They pay rent for the number of square feet they use. Each floor has a bright waiting hall at one end of the lobby. Graham has a nice little unit with consulting-room, three examination rooms, secretary's room, and two large storage cupboards, all in a space not much larger than 1½ times my room. Each examination room has a couch with drawers under in which instruments, dressings and so on are kept, and every kind of light and scope. I left him to go shopping, but I found the things I wanted seemed twice as expensive as in England.

The large department store is Eaton's. Young Eaton is at Corpus, Cambridge, in his second year. In the evening we went "white ties"—all Toronto society, to a performance of "Cosi Fan Tutti," Mozart, by the Salzburg Opera Company. This also was at Eaton's; part of the store is an enormous theatre, or auditorium as they call it, that is also let for dances and other functions. The opera was fine, tuneful and full of action, very pretty and acted by a company without stars, all equally good, able to sing, able to act, and decent looking.

Tuesday, November 2nd

9 a.m., Graham operating. One dodge, he makes a pocket each side with small towel folded and held with towel clips, and in this puts a gauze roll. As they cut bits before they use them, it may be a bit unsafe. He had two Sisters and two male assistants, later with his registrar also making five.

Right paramedian rectus retracting incision. Careful knife dissection, good hæmostasis, uses reel to tie—altogether very nice. Long history of stubborn duodenal ulcer, and is very chagrined to find a non-stenosing ulcer of small size. Decides on Finney.

Mobilises and clears second part of duodenum, very carefully, very widely, and very low, using fine scissors; when mobilised the I.V.C. was well exposed behind, and entry of common duct palpable. He cleaned the fatty stuff off medially, so that he really had a wide and long duodenal surface. Two silk stay sutures, one at pylorus, one a full three inches down the duodenum and greater curvature. Ties, holds up, and puts in a series of interrupted silks in between, leaving them all long. Holds all these to draw up the water shed, while he cuts round a U, taking outer coats only, about a quarter of an inch from silk sutures. Second layer continuous catgut blanket stitch with straight needle, starting at apex of V; cuts each silk as catgut sews over it. Now red towel over operation field. Opens mucous membrane; sucker ready but not used. Cuts all round the V with scissors, catching edges with Allis forceps every inch or so. Third layer

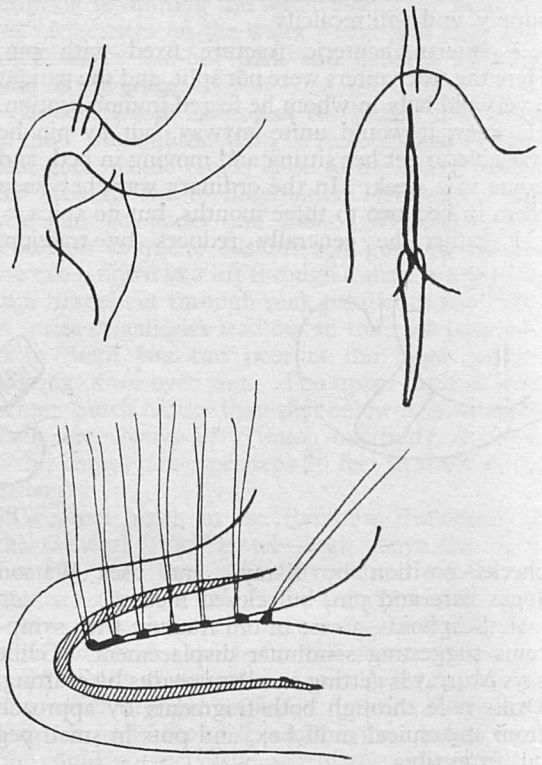


Fig. 76.

starts also apex of V, through all layers with blanket stitch; at turn comes back with plain over-and-over stitch. Second layer starts at pylorus, and after going an inch or so takes former second layer where it finished in a knot below, and works it back to knot with this one half-way. Interrupted silk again for third layer.

Posterior rectus sheath with continuous catgut, reinforced by a silk catch up every inch.

A very nice piece of work. A Finney done this way has quite a lot in its favour.

At 10.30 I went across to Physiology Department. Charlie Best, who cannot be more than about thirty and has one of the most brilliant brains in the world, is Professor of Physiology, but has in hand every kind of research. This particular occasion was a visit by Priestley (surgeon) and Essex (bio-chemist) from the Mayo Clinic, and Bold (pathologist) to hear his work on Heparin, so I was very lucky to come in for a full-size demonstration.

Heparin was discovered by Howell in 1929, first isolated from liver—hence its name, but now found to be most plentiful in the lungs. Related to Chondroitin. Howell's product was very impure and toxic, but Best has got it in a crystalline form which is pretty pure. His first paper on this is in *Surgery* (a new periodical of Gallie's), August, 1937, but he has worked at it since 1929.

Thrombosis under normal conditions is the work of platelets. On any endothelial injury, or at the oldest part of any natural clot, you find a white thrombus, that consists of platelets and nothing else. The red clot follows when circulation is arrested. The platelets, which he prefers to call thrombocytes, are shown by putting blood on to a glass slide and washing it off at once with Hayem's solution; only the platelets are left, with an occasional leucocyte. He had some wonderful dark ground photographs of platelets, showing apparent pseudopodia, but these may be dying phenomena. Very soon the whole cell explodes, and he calls them explosive cells. He says platelets seem to be formed in the lungs. He is very hopeful of eventually getting a dark ground film of platelets in movement. The film he showed he got by the following apparatus, let into the carotid and jugular of a dog. With Heparin no clot occurs and the field is just a red sheet, with shimmers as the blood streams past. In the normal animal little white spots appear, grow, and are cast off. As big islands of white thrombus appear, the eddy currents of the blood behind them become clearly

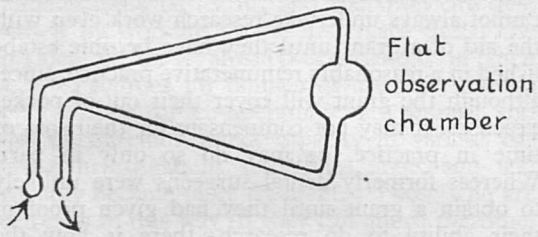


Fig. 77.

visible. A scratch is made across the plate, and a line of white thrombi appear on this, flat towards the stream, growing and tailing off in stream-line points on the lee side; these chunks also break off from time to time. Heparin is given, and the chunks break off at irregular intervals, get carried away, and the field is clear once more.

Best says that as each big thrombus breaks away the dog shivers and collapses temporarily. Why is this? No such collapse follows ligature of a main vessel, or removal of a lobe or a lung. He suggests subject for future research.

Heparin stops absolutely the formation of thrombi, but it has no action at all in dissolving those already formed. It seems an antagonist to thrombokinase.

In clinical use it is being given, starting two to four hours after operation, in doses sufficient to double the clotting time. The effect stops two hours after administration ceases. At present, cost is pretty prohibitive, as it costs the laboratory about £5 for enough to treat a patient for one day. So far eighteen cases have been treated. I saw a few of these under way in the ward.

A young girl about 21 was being given Heparin; operation yesterday, clean appendix. Normal clotting time, five minutes, now nine minutes. Will be increased to-morrow to fourteen minutes. She was being given intravenous drip (as there is no clotting quite a small needle can be used for the vein; they say the vein often feels solid round the needle, but there is no clotting, and the lump disappears after the needle is removed). They had made up 4,000 c.c. of saline with 200 units of Heparin; this amount will last about two days. Strength varies; for instance, if it is for any reason unwise to give much fluid, the concentration of Heparin will be increased, about 20,000 units a day, but the dose given is entirely guided by its effect on the clotting time. They try to get them three or four times normal, or about fifteen minutes.

They do not fear over-dosage, or hæmorrhage as the result of administration, because thrombokinase is a direct antagonist of Heparin, and exists in enormous quantities in all tissue. Heparin cannot unseal a vessel already clotted. In one case the nurse let the saline roar away and a man got about twenty times the normal dose. He got a hæmatoma of the rectus sheath and brought up blood through a duodenal tube, but bleeding stopped as soon as Heparin was stopped, and he got quite well.

By the way, here and elsewhere they are freely using blood drawn off, citrated, and kept on ice. Forty-eight hours is about the maximum here, but no harmful results.

They also give Heparin to cases with spontaneous peripheral thromboses, and find they clear up and recover much more quickly than the untreated ones.

This evening there was a party at the Graham's house—mostly medical, but a stockbroker was there who was amused by my ignorance of the prevailing slump.

(*To be continued.*)

Research on Dental Diseases

By Martin A. Rushton, Esq., M.B., L.D.S.

EVEN the least inquiring student cannot fail to notice how scanty is the knowledge which his teachers are able to provide on the ætiology and pathology of dental diseases. Technical procedures approach perfection more nearly every year, can be adequately taught, and rightly occupy the greater part of the student's time, since by the use of these methods he will gain his livelihood. Many dental men of more than average ability employ their talents in mastering exceptionally difficult and valuable technique, and undoubtedly reap their reward. There is little pecuniary recompense, on the other hand, to be expected from efforts to solve the problems connected with the pathology of dental diseases, though this would not matter much if there were not also very little encouragement or opportunity. For these reasons the small proportion of young dental surgeons fitted to undertake such work (perhaps two or three in a thousand) do not often attempt it, and in fact the number of persons engaged on investigations of the kind in this country is small.

It is worth while to examine more closely what categories of persons are attempting to do dental research.

1. *Dental practitioners who do such work in their spare time at their own expense.*—These have in the past made observations of the greatest value. Practical disadvantages are that the number of men who are able in these circumstances to produce work of sound scientific character will always be very small, and that extremely few can afford to do so while young (especially if they want to marry). If they do not start to do so when young they will generally be unable later on when years of practice have rendered their circumstances more comfortable but their minds less adaptable. Perhaps the most valuable contributions of this group are the compilation of accurate and complete records, but such work is not very common. It has been objected that the activities of these men are often confined to the study of rare disease of little practical importance. The reason is obvious, but the perfect reply to the objection is the paragraph from a letter of Sir William Harvey quoted last year by Sir Arthur Hurst: "Nature is nowhere accustomed more openly to display her secret mysteries than in cases where she shows traces of her workings apart from the beaten path, nor is there any better way to advance the proper practice of medicine than to give our minds to the discovery of the usual law of Nature, by the careful investigation of cases of rarer forms of disease."

Here is a way in which the intelligent young practitioner or house-surgeon may make a valuable contribution to knowledge. He should certainly not allow himself to be discouraged by accusations that he is "rushing into print," though he should take care to make his report as complete as possible and should obtain information as to previous cases published. The latter is not difficult even for isolated provincial practitioners owing to the excellent library service of the British Dental Association and the always helpful counsel of its Honorary Librarian. A single report may not appear of much value at the time of publication, but if properly presented may later become, with others, the foundation of important conclusions.

2. *Dental practitioners who are assisted by a grant but who depend on practice for a livelihood.*—Those in this category suffer in a less degree from the disadvantages mentioned in the first group. They are not numerous, partly because the number of grants is limited and partly because it is said that suitable applicants are few. Most of the grants are obtained through the Medical Research Council, but a few may be available to graduates and students of certain universities and other institutions. In most cases the grant is made for a specific piece of work. Dental practitioners cannot always undertake research work even with the aid of a grant until they have become established in a reasonably remunerative practice, since, although the grant will cover their out-of-pocket expenses, it may not compensate for their loss of time in practice, or may do so only in part. Whereas formerly dental surgeons were unlikely to obtain a grant until they had given proof of their ability to do research, there is now the possibility that selected persons may be given the opportunity to train and try their skill without previous experience (*see below*). Those who obtain support are in a position to carry out a more sustained programme than those in the first category and to secure some laboratory assistance.

3. *Whole-time university teachers who are dental surgeons.*—It is generally understood that the holders of such appointments should have time to prosecute research. They have excellent opportunities in many ways, but whether they often have sufficient time is extremely doubtful. At present a dental surgeon who obtains a whole-

time university post in the hope of considerable opportunity for research is likely to be disappointed. This is a most unhappy state of affairs.

4. *Whole-time research workers on dental diseases who receive a grant sufficient to live on.* These are extremely rare, though it is believed that one or more exist. They should be our most efficient instruments.

5. *Workers in other faculties who receive part-time grants for work on special aspects of dental problems.*—These are essential, and at any time several of them are engaged upon chemical and biochemical, physical, and statistical questions. Some dental surgeons are inclined to look on them with a jaundiced eye, but it is likely that many of our most important advances will come from members of other faculties.

The small number of senior students and newly qualified dental surgeons who are keen to undertake some serious research should not be unduly depressed by the foregoing review. The difficulty is partly a financial one, though when we consider that the Dental Board has an annual income of about £45,000, less than a third of which is spent upon its compulsory statutory duties, we cannot regard that difficulty as insuperable. But the question arises as to whether if we had the money we should have the men, and the answer is probably "No." I do not speak from experience, but express the opinion of research workers in other branches of science when I say that research methods must be learnt, and that they are best learned by working in the first place under the direction of those already experienced in such work. Facilities for doing this are rare, though opportunities for co-operating in a minor, and possibly unremunerated, capacity in various extensive investigations sometimes arise, and will probably become more frequent. Those who are keen may in this way (if they can afford the time) acquire some knowledge of the requisite methods and outlook and discover whether they like and are fitted for such work. I do not doubt that many young dental surgeons would gladly do this if they knew of any investigation in which to co-operate and if there were some chance that if they proved suitable for the work they would be able to pursue it in a more permanent and a remunerated capacity. As things have stood up till now it has hardly been justifiable to encourage recently qualified dental surgeons to look forward to a career of research as a principal occupation, since there has seemed practically no possibility of their earning a living in this way.

If a regular, though small, supply of suitable and adequately trained research workers is to be available in due course there must be a number of junior research appointments, and a few senior appointments of reasonable permanence, and both must carry remuneration of a standard not much lower than a dental surgeon would be able to earn in a rather unsuccessful practice.

A man who has been in practice for many years without thought of research has generally become unsuited for such work. Desirable candidates would be men who had obtained a qualification in dental surgery and additional scientific or medical knowledge. The qualities needed are the same as those required in other branches of medical research, and they have been frankly set forth by Sir Edward Mellanby in an article in the *University College Hospital Magazine* (1937, May-June). But no first-class recently qualified man can afford to occupy much of his time with research unless some junior appointment is available for the purpose, for the time when the choice has to be made is that at which his funds are lowest. And very few can be expected to enter this path unless there is a chance that if they prove suitable for the work they will be able to proceed with it in an appointment of reasonable permanance.

The policy of the Medical Research Council of offering studentships to recently qualified men whose record and ability indicate that they are likely to become fitted for research has been in operation since 1935 and has opened up a new vista. Probably many dental men who have noted this development have not realised that these appointments are no less open to those wishing to study the pathology of dental diseases than to candidates interested in other fields of medicine. It is earnestly to be hoped that a few of the best of our dental men will endeavour to fit themselves for and to obtain such appointments. The studentships are devised for a well-defined purpose: to train prospective research workers and to give them their first opportunity, not to support them while they are working for higher qualifications. Successful holders of studentships become eligible for further appointment as Fellows.

With regard to senior whole-time or nearly whole-time research appointments, though they are at present lacking, there is some hope that they will come and that the universities will share this responsibility.

They need not be numerous, but a few would be of the greatest value. The holders would be in a position to do good work themselves, to train and assist junior workers, to organise investigations in which practising dental surgeons could co-operate, to enlist the interest and assistance of workers in other faculties, and to exercise a

profound indirect influence on the dental outlook in the universities or centres to which they were attached.

There is no doubt that certain universities and schools appreciate the necessity of appointments of these kinds, and that if we can produce the men we shall eventually get the appointments. It has been said that in medical research at the present time there is too much money available for the doing of research and not enough for the training of men to do it. As regards dental diseases, one may say that there is very little money at all, but that the chief deficiency still is the lack of a centre where men and women may be trained and of funds upon which they may subsist while they are being trained.

Reviews

The Essentials of Modern Surgery. Edited by R. M. HANDFIELD-JONES and A. E. PORRITT. Published by Messrs. E. & S. Livingstone, Edinburgh. Pp. 1,090. *Price* 30*s*.

THIS new book is published as a companion volume to Conybeare's "Textbook of Medicine," and it is indeed high praise to say that it maintains the high standard set by its elder brother. The editors have realised the difficulties of keeping abreast with the more specialised aspects of modern surgery, and have enlisted the co-operation of a distinguished group of contributors. For a work of this type overlap is remarkable by its absence, and editors and contributors alike are to be congratulated on the admirable balance maintained throughout the book.

The general standard of the individual articles is of a high order of excellence. They are all presented in a most attractive manner, and the teaching throughout is based upon a sound knowledge of anatomy, physiology and pathology. Of outstanding merit are the articles on diseases of bones and joints by E. P. Brockman; diseases of the chest by Tudor Edwards; abdominal surgery by Gordon-Taylor; hernia by Vaughan Hudson; venereal diseases by G. L. M. McElligott; deformities by Walter Mercer; diseases of the brain, scalp and skull by Dickson Wright; and diseases of the appendix by Julian Taylor. In the latter chapter, at long last, we see the Ochsner-Sherren treatment of acute appendicitis in its true perspective. Articles on the other specialties by Lionel Colledge and Walter Howarth (ear, nose and throat), A. W. Matthew (anæsthetics), R. Y. Paton (diseases of nerves), and Leslie Williams (female genital organs) maintain the general high standard of the book as a whole.

The remaining chapters are the work of the two editors, and whilst these are generally good, some of them are disappointing. Perhaps the most disappointing sections are those on the thyroid gland, breast and prostate, injuries to the shoulder, fractures of the upper end of the humerus and rupture of the urethra. Whilst a degree of dogmatism is permissible, and even desirable, in an undergraduate book, the authors appear to have gone a little too far in some respects. For instance, in talking of chronic mastitis they state that "the conditions of 'blue-domed' cysts and of hyperplasia are considered to be definitely pre-cancerous," and of Graves' disease, "it is accepted that the condition is produced by a perverted secretion." Again, surely they would not have students believe of prostatectomy that "Harris's operation and transurethral resection have obviated the use of suprapubic drainage and thereby reduced the complications of prostatectomy."

In constructive criticism, the following suggestions for the second edition of this book are put forward. The inclusion of a diagram of the anatomy of the subphrenic spaces would clarify the section on subphrenic abscess, and Milligan and Morgan's account of the anatomy of the rectum and anal canal certainly merits reproduction. The treatment of strangulated hernia might be amplified and additional sections on post-operative chest complications and the types of jaundice with their differential diagnosis might well be introduced. Whilst the authors have deliberately omitted any account of operative details, it is felt that a sense of completion would be attained if details of the commoner operations, sometimes asked in surgical anatomy *vivas*, were included, *e.g.*, operations for hernia, appendicectomy, suprapubic cystotomy, rib resection, etc. Descriptions of the common abdominal incisions and of the main amputations of the limbs might also receive consideration.

No excuse is needed by the authors of this work for the publication of yet another textbook of surgery. "The Essentials of Modern Surgery" fills a definite gap in presenting its subject in a reasonably compact manner yet avoiding the pitfalls of a "cram" book. Basic principles are stressed throughout, the text is easy to read and the numerous plates, diagrams and diagnostic tables are admirable; as a thoroughly sound method of learning surgery this book should prove a great blessing to all students. For my part it is an even greater blessing. When repeatedly asked by dressers and ward clerks what book on surgery they should read, instead of a long discussion at

the end of which no strong recommendation can be made, I can now say simply, " Handfield-Jones and Porritt." S. H. W.

Infant Feeding in General Practice. By J. V. C. BRAITHWAITE, M.D., M.R.C.P. Published by Messrs. John Wright, Simpkin Marshall & Co. Pp. 140. *Price* 4*s.* 6*d.*

THIS is a very good book, expressing a thoroughly sound opinion upon the intricacies of infant feeding and giving far more practical advice in its hundred and forty pages than may be found in many a tome elsewhere.

Dr. Braithwaite has obviously had a wide experience of the nutritional problems of infants, and has used it wisely. Indeed it is a welcome change to find the difficulties of diet in infancy spoken of in the light of personal experience rather than dismissed, as they so often are, with the choice of bottle or mother according to taste, until old enough to find something better.

The book is arranged in a conventional manner and begins with some splendid emphasis of the importance of breast-feeding as opposed to any other method, and a lament that this, the best (as well as far and away the cheapest) source of milk is not as popular as it might be. After that follows a description of some of the difficulties which may be encountered during an attempt to feed an infant from the breast. There is nothing new here, save perhaps the author's wise emphasis of the necessity for patience and perseverance, and how well he must recognise its all-too-frequent absence.

The section on artificial feeding is thorough and supplies an amazing amount of detail in a very short space without becoming a catalogue. And, finally, there are several useful appendices containing recipes and milk mixtures which the author has found of value.

Altogether an excellent book for student, practitioner, mother or midwife. A. H.

Diseases of the Nose, Throat and Ear. By I. SIMSON HALL. Published by Messrs. E. & S. Livingstone, Edinburgh. Pp. 423. *Price* 10*s.* 6*d.*

THIS book, " designed to meet the needs of the busy practitioner and the student," is a good working manual. The descriptions of how to examine the various parts of the nose and throat are given with a clarity and an appreciation of the beginner's difficulties that are unusual. The style is easy and on the whole lucid, though too dogmatic in places; to put all patients with definite laryngeal tuberculosis on a regime of strict silence is surely unnecessary. The book is, however, eminently practical, and the student who buys it will find it a useful standby when he is in practice. N. W. M.

Correspondence

Mr. Hughes

To the Editor of the GAZETTE

SIR,—The last issue of the Gazette must have stirred up in the minds of thousands of Guy's men who were privileged to know Mr. Hughes many treasured memories. As an obscure " Dental " who was fortunate enough to be at Guy's just after the War, when Mr. Hughes was our tutor in general surgery, I would like to take this opportunity of saying how great was the admiration and affection we dental students felt, and will always feel, for him. There are a few people who come into our lives and who have a definite effect upon us, and I am sure that all who knew " Joey " are the richer for it in many ways. Apart from appreciating his great knowledge and wisdom, the memory I have most vividly of him is his innate kindness and courtesy to all, students and patients alike, and that priceless asset, his sense of humour.

I shall never forget my first attendance at his " Out-Patients." A rather overawed old lady from the Borough was the first patient, and after the consultation, there being a score or more of us around, " Joey " personally conducted her to the door, adding a few private words of reassurance and advice. That picture is indelibly in my mind. It was a lesson in itself to us raw seekers after knowledge. I saw him once in the ward detach himself from the crowd of followers to give a child a special book he had brought for her and asked her to let him know what she thought of it. Little matters, maybe, but the signs of the truly great. A little while ago, the Assistant Matron of a big general hospital told me that as a probationer she once sent a note to Mr. Hughes about a patient, addressing him, in blissful ignorance, as " J. Hughes, Esq." When they next met, he said to her solemnly: " Nurse, I believe you have been calling me ' Joey ',' " and then came that whimsical smile we all know. She added, " But he was always particularly nice to me after that."

I know that I shall offend nobody when I say that Mr. Hughes represents to us a standard which, if we can emulate in but a small way, we shall be worthy of the title " Guy's Man."

My card is enclosed, but, being quite undistinguished, I will sign myself,

Yours, etc., " GUY'S DENTAL."

Felpham, Bognor Regis.

The Debating Society

THE MIXED DEBATE

ON Tuesday, December 6th, 1938, the Nurses' Home was again invaded by the Guy's Debating Society to meet the Nurses' Society in a third battle of words.

The motion, proposed by Nurse Buchan, was that " This House favours the entry of women into the Medical Profession." In support of her proposal Nurse Buchan tried to show that women are just as suited to the profession as men, and she saw no reason why, if they could take up, and make a success of, such professions as teaching, law and commerce, they should not make very good doctors.

Her arguments were convincing, but her honourable opponent, Mr. Brian Johnson, rather swept the house off its balance by a vivid and humorous speech opposing the motion. His contention was that women are born nurses, but that doctoring is foreign to their mental and physical balance. The woman who is willing to fulfil her mission in life, *i.e.*, to marry and produce children, is absolutely unable to look after a house and run a practice. If she indulges in a marriage of convenience which enables her to maintain a practice, she has no right to dictate to mothers how to run a house and family properly. Mr. Johnson continued by giving his idea of a woman's position. In his estimation she should not be the drudge of the kitchen, but queen of the home.

His graphic description of the " lank-haired, gin-slinging popsies " who forfeited their womanly characteristics to ape men and claim total independence caused a ripple of mirth which was not untinged with indignation.

Nurse Thompson then seconded Nurse Buchan's proposal in a very well thought-out but rather irrelevant speech. Her tactics were rather to criticise " mere man " and to point out that women could do all and more than most men. One very good point which she raised was the suitability of women in special clinics, such as V.D., gynæcological, etc.

The Chairman, Dr. Gillespie, then opened the debate to the public. Mr. Gueirrier supported the motion and gave a very able imitation of the opposer's exaggerated mannerisms. Mr. Thomas rose to his feet and sent a challenge to Mr. Johnson asking him to find one speaker willing to back the opposition, but ere the gauntlet could fall Nurse Wadham caught it and sent it whizzing back in his face. Satisfied that he was not taking part in an uneven fight, Mr. Thomas then gave us the benefit of his acquaintance with women doctors. He objected to the use of the epithet " gin-slinging popsies " and to the physical disabilities attributed to them. Like Mr. Gueirrier, he pooh-poohed the opposer's " Colonel Blimpish " manner and also to his " clinging-vine " ideal.

Nurse Torrens then spoke in favour of the motion and, after one or two questions had been asked and answered, owing to lack of time Dr. Gillespie was forced to close the meeting.

His summing up was short but very influencing. He said that as a graduate of a co-educational Medical School, he could say a great deal. He added, " I am surprised that no one has produced any statistics. I will give you these. Among women graduates the marriage average is 26.7 per cent., and their percentage of children is nothing point none."

He then put the motion to the vote, and it was defeated by 56 votes to 47. The evening was closed by a vote of thanks to Dr. Gillespie proposed by Mr. Johnson and seconded by Sister Marriott. This was enthusiastically supported by all present.

D. R. M.

Hospital Information, etc.

Pass List

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.
November, 1938.

Surgery.

C. E. Winterstein.

Medicine.

*R. M. Corker J. A. L. Leeming

Forensic Medicine.

*R. M. Corker J. A. L. Leeming

* Has now completed the examination.

Papers by Guy's Men

Douthwaite, A. H., and Lintott, G. A. M. Gastroscopic observation of the effect of aspirin and certain other substances on the stomach. *Lancet*, 1938, ii, 1222.

Appointments

Lyle, Gordon, M.R.C.S. Eng., L.R.C.P. Lond., L.D.S. Eng., to be Visiting Dental Surgeon to the Warlingham Park Hospital (for Mental and Nervous Disorders).

EDS. { C.H.E. W.E.Y.

GUY'S HOSPITAL GAZETTE

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PUBLISHED FORTNIGHTLY.

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PASSIM

WE have lost, by the death of Sir Edwin Cooper Perry, one of the greatest characters and best friends that this Hospital has ever had throughout its history. We, the younger members here now, do not remember him for his long term of active service to Guy's had finished before we came, but his intellect was the type that made a deep and lasting impression upon anything that it came into contact with, and though we have not had the privilege of working with him, we cannot help but realise when we hear our elders talk that many of the Hospital amenities that we now take for granted are the living examples of his fertile and far-seeing mind. His name ranks with those that all students hear of during their training, for, though his name is not perpetuated in any of the institutions that he fostered, it is constantly mentioned as being the driving force behind them. His original mind, coupled with a great power for organisation, gave us the departments that made us pioneers amongst the teaching hospitals and set up a store for us that we have drawn upon for many a long year.

It is not for us to describe the man or his work, for our account would lack the truth and accuracy of those who came into close touch with him, and they have been eager to put into words for us the high regard they had for a man of so many attainments and with such a precious gift of inspiration. We did not know him, but his presence is felt here still and will be for years to come; we regret his passing and thank him for preserving and enriching our Hospital for us.

CHRISTMAS once again is past. Those weeks of ever-increasing labour have reached their climax and have been replaced by rest and relief. Once again everything went off with the same swing, with the same pleasantry. A veil of snow transformed Guy's into as unusual and seasonable a picture as could be expected in the absence of the traditional colour that the "Niggers" used to give. Snowballing in the Park by maids and by snipers from various balconies provided an old-fashioned Christmas gauntlet that many of us were compelled to run in the course of our lawful duties. In many quarters parties were being arranged to go winter-sporting on the Hog's Back and elsewhere, and of an evening the College dining-room might have been, to hear the talk, the lounge of an hotel at St. Moritz.

In the wards, where Christmas Day was officially celebrated on Monday, there was the round, as there always has been, of dinners, teas and other festivities, bountifully supplied with excellent turkeys, puddings, rolls and a thousand varieties of cakes and sweets; it was a little less hectic and hilarious but all the more enjoyable—to housemen at all events, and to most others, too—than in the vintage or "Nigger" years.

The Children's Party in Out-Patients, for which there had been more applications than ever, went one up on its already extraordinary reputation for enthusiasm, for high spirits and for magnificent entertainment.

WE have great pleasure in congratulating Dr. R. S. Bruce Pearson on his appointment as Assistant Physician to King's College Hospital.

Sir Edwin Cooper Perry

M.A., M.D., LL.D., F.R.C.P., G.C.V.O.

A MEMORIAL Service was held in the Hospital Chapel on Thursday, December 22nd, for Sir Cooper Perry, when many of his friends shared in a simple service to honour his memory. Professor Johnston read the lesson, "Let us now praise famous men." Mr. H. L. Eason gave the following address :—

We are gathered here to-day to honour the memory of Edwin Cooper Perry, Master of Arts and Doctor of Medicine of the University of Cambridge, Honorary Doctor of Medicine of the University of Egypt, Honorary Doctor of Laws of the University of London, a Knight Bachelor, and a Knight Grand Cross of the Royal Victorian Order.

The son of a country clergyman, he was a Scholar on the foundation at Eton from 1872 to 1876, Newcastle Scholar and Head of the School. At Cambridge, Senior Classic, Fellow of King's College. At Guy's, Physician, Warden of the College, Dean of the Medical School, and Superintendent of the Hospital for twenty-eight years. In the University of London, a member of the Senate, a representative of the Crown on the University Court, Vice-Chancellor and later Principal Officer.

"*Nihil quod tetigit non ornavit*" is, I think, the best epitaph for him. He would have made an ideal Civil Servant. A classical scholar, a musician, a great physician and pathologist, an administrator of unusual quality, in all spheres of his activity he did not much care who got the credit for anything done as long as it was done, usually by him.

Those who worked with him behind the scenes knew his value, his massive intellect and his constructive capacity. The outside world knew him hardly at all. This was due to a peculiar combination of intense shyness and a justifiable vanity. He hated public speaking, and in his hospital days was so nervous about giving a lecture to students that he never slept the previous night. When he did lecture he did so with his eyes on the ground in manifest discomfort. His shyness led him to hide behind a certain brusqueness of manner, which was not always appreciated by his acquaintances. Those who got behind this screen soon found that he was intensely human, kind-hearted and sensitive. He was extraordinarily fair-minded and just, and would make allowances for everything but mental dishonesty. Moral delinquencies he could forgive, but anyone who prostituted his intellectual gifts to base purposes or was tortuous in his mental dealings passed into the limbo of outer darkness as far as he was concerned.

In the world of medicine he was the last of the great succession of morbid anatomists at Guy's Hospital. His manual skill in conducting a necropsy was perfect, and his knowledge of morbid anatomy encyclopædic. His bedside teaching was extremely effective, owing to his grasp both of clinical medicine and morbid anatomy, and to be his house officer was the delight of generations of Guy's men.

In the world of music his important achievement was the revision, in conjunction with Dr. A. H. Mann, of the Anthem Book in use at King's College, Cambridge, and throughout his life he was a devotee of the more formal and classical music.

It was in administration, however, that he made his mark. Coming to Guy's Hospital from the London Hospital in the early nineties of the last century, he found that it had been asleep for thirty years. He reorganised its constitution, its administration and its finances, and for the twenty-eight years that he was its Superintendent it flourished as a happy institution free from acute financial anxiety.

He reorganised the Army Medical Service after the South African War and was responsible for the building of the present Army Medical College at Millbank. He was for many years on the Council of King Edward's Hospital Fund for London and the Chairman of its Distribution Committee. In this capacity his profound knowledge of hospital administration and his understanding of the peculiar problem of teaching hospitals was invaluable.

He had a mastery of concise and lucid English prose. He was a firm believer in that precept of Quintilian's that "Care should be taken not that the reader may understand if he will, but that he must understand, whether he will nor not." It was this passion for accuracy that led some people to think that he was fussy over verbal corrections. As a matter of fact he never corrected a document that he did not improve. A few words changed, a sentence reconstructed, and the memorandum was at once on a higher plane. When he himself was in doubt as to the clarity of a sentence, he had the habit of translating it into Latin and then

back again into English. If he could get the sense clearly in Latin it must be clear, and he was satisfied.

Women either admired him or disliked him intensely. There was no middle course for them. He had a habit of paying back-handed compliments that did not make for feminine appreciation.

Those who realised his great human qualities behind the lack of social graces were his devoted friends for life, and he in turn repaid their devotion with countless kindnesses. In his form he was bulky and ungainly. No one seeing him at any time in the last forty years would ever have imagined that he had played the wall game at Eton. He never walked if he could take a cab, and in his later years physical exercise was unknown to him.

His success as an administrator was due to the fact that he had a constructive policy of his own for every problem. He had a contempt for the destructive critic who had no constructive ideas. As a committee man one found that he had always read the minutes of the previous meeting and had corrections to make if necessary. He had always read his agenda and had his own ideas as to the action to be taken; and finally, he had his own ideas committed to writing in the form of a resolution. A man who does this nearly always carries a committee with him, especially when his ideas are both well considered and original.

Resembling the late Lord Salisbury in his face and figure, he in his mind also resembled an Elizabethan statesman such as Cecil. Weighty, wise, deliberate in judgment, knowing just when to wait and watch and when to take decisive action, he would have been a worthy member of Queen Elizabeth's famous Councils of State. He could draft a document that could be subtle without deceit and uncompromising yet courteous.

He lived his life as he wished it. Regardless of money or public applause or preferment, he chose the reality of power and influence rather than the trappings of publicity, and he used his incomparable mental gifts entirely to the public good. He well deserved one of his favourite epitaphs, "*Inservivit saeculo suo*" (he served his generation).

Obituary

SIR EDWIN COOPER PERRY, M.A., M.D., LL.D., F.R.C.P., G.C.V.O.

EDWIN COOPER PERRY was educated at Eton, where he was Captain and Newcastle Scholar, and at King's College, Cambridge, of which he was a Fellow. He won the Bell, Browne and Pitt Scholarships, he was Senior Classic in 1880 and, it is said, a remarkably good one; consequently he could easily have secured a lucrative post in the teaching profession, but this did not appeal to him, so he began the study of music and arranged the anthem book which is still used in King's College Chapel. Music was given up for philosophy, which he studied at Leipzig; this, in its turn, was put aside for medicine.

He held house appointments at the London Hospital and was in 1887 elected assistant physician to Guy's, physician to the Dermatological Department and demonstrator of Morbid Anatomy. There was much competition among the students to work with him, for he took great pains with his excellent teaching; sometimes he was rather caustic, but it was all for the pupil's good—he never made the same mistake twice if his teacher had been severe.

Perry had very great abilities in many directions, but up to now he had not publicly shown one of his greatest, namely, that of administration and organisation. Throughout his life his constant, ardent desire was to make things a little better then they were without any reference to self-glorification or publicity, which he loathed; he delighted to work quietly and very hard. At about this time it would seem that he determined to use his gift for administration and organisation, which he must have known he possessed, for the benefit of medicine.

Soon after his arrival at Guy's he became Dean of the Medical School, and the reforming administrator quickly got to work. For many years there had been only two house physicians and two house surgeons at a time, each serving two physicians or surgeons, and the higher appointments, such as dresserships, were few in number. The result was that the fortunate few who held the higher appointments were greatly overworked, and not many of the students could obtain them. Perry altered all this and instituted the arrangement that now holds, converting, to use his own words, an oligarchy into a democracy. No Medical School then had a Medical College. Perry built the one we now have and housed the Students' Club in it. He became Warden. Readers of the *Gazette* will know that the building is old-fashioned and inconvenient, but we must remember that it was the first of its kind. A large building was put up to contain the Medical School Offices, the Gordon Museum, the Wills Library, the Physiology and Chemical Departments, an entirely new

Pathological and Bacteriological Department and Post-mortem Room appeared.

The Superintendent was Dr. Steele, who occupied the part of the Hospital where the Appeal Office is situated. When he died, Perry astonished everyone by offering to become Superintendent; such a thing as a member of the Staff also holding this office had never been dreamed of in any hospital. The offer was gladly accepted; Perry left his Wardenship and moved into what had been the Treasurer's House, as the Treasurer was no longer resident. An ideal arrangement was for Perry to be associated with an able, hard-working, kindly man of the world who went about and mixed with people. Sir Cosmo Bonsor, the Treasurer, was just such a person; he and Perry formed a magnificent pair. The whole of the interior of the Surgical Block was modernised, the single old-fashioned operating theatre was replaced by many new ones, and lifts were installed. The Nurses' Home and a Laundry were built with new furnaces and boilers. Proper accommodation was provided for ward and laundry maids, and the Works Department—indeed the whole Hospital—was transformed.

There was no proper dental treatment provided for the two million poor who depend upon Guy's. Perry, setting Mr. Newland Pedley to help him with technical dental details, built the Dental Department and founded the Dental School. But all this by no means occupied the whole of his activity.

There was severe criticism of the Army Medical Department for its management of the Boer War. Sir Alfred Fripp had been out in it as a surgeon; he took an active part in pressing for reform and, knowing Perry's power of organisation, he persuaded him to help him. The result was that a committee, of which both Perry and Fripp were members, was formed to make recommendations. The chief recommendation the committee made was that an Advisory Board should be formed and that the R.A.M.C. should be under its direction. Fripp and Perry were members of this Board, which secured the removal of the Army Medical School from Netley to its present building on the Embankment next to the Tate Gallery. Periods of study leave were introduced and the Army Nursing Service was reformed. For his work in this matter Perry received a knighthood.

The first Lord Cromer, through the Government, applied to the Royal College of Physicians to recommend someone to go to Cairo to organise medical and pharmaceutical schools for Egypt. The College advised that Perry should go. He went; the work was quickly and well done, and it has not been found desirable to alter the principles he laid down many years ago. He received an honorary degree from the University of Egypt.

A severe and acrimonious dispute arose in a large hospital in the North. Perry was asked to go to arbitrate; he did, and his decisions were accepted by both sides.

He was active in helping towards the State registration of nurses, in founding the College of Nursing and the Chartered Society of Massage and Medical Gymnastics. He became Vice-Chairman of the University of London in 1917 and Principal a few years later. The University gave him the honorary degree of LL.D. For many years he was on the Distribution Committee of the King Edward's Hospital Fund. Last year he received the distinction of G.C.V.O. He served on the Voluntary Hospitals Commission, and on departmental committees on post-graduate medical education, the disinterested management of public houses, and the Royal Veterinary College. He was a Governor of Guy's Hospital, Bedford College and the Royal Holloway College, and at the time of his death was busy as Chairman of the London School of Hygiene and Tropical Medicine.

Cooper Perry was a really great man, who might have followed one of several other careers with exceptional distinction. As the obituary notice in *The Times* said, he might have become a second Porson, a Lord Chancellor, or the Archbishop of Canterbury. He chose the path he did because he thought that thereby he could do good to his fellows. To many he was unknown, for he rarely went out, he did not attend meetings in which he was not directly concerned, and he did not write to the papers.

Some found him abrupt and sarcastic, but he was only thus to those who were insincere, those who were self-seeking or those who had not troubled to understand the matter in hand. Otherwise he was as kindly and helpful as anyone could be. Those who worked with him venerated and adored him. When he left Guy's a meeting was held to present him with many gifts and the large Court Room was packed with Staff—medical, surgical and dental—with past and present students, with the staffs of the Medical and Dental Schools, the Nursing Staff, the Administrative Staff and that of the Works Department.

Outside his work he was fond of music and of the classics, and he enjoyed working at a lathe. Nothing could be more pleasant than a little dinner party if he was there, for he was a good and witty talker. His desire to help others was shown in private as well as in public, and there are many who owe their happy and comfortable life to him.

W. H.-W.

Photo by Russell, London.

SIR EDWIN COOPER PERRY, G.C.V.O., M.D.

Appreciations

OTHERS will write of Sir Cooper as the great administrator and physician; I would do so as the kindly teacher and guide to the young. With a few elderly general practitioners, two of whom are my contemporaries and his own pupils, he was, I believe, the wisest doctor I have ever known. There was great competition to get on with him, but, if it were possible, this had to be as a second three-months' medical ward clerk, because he never asked questions of those in their first three months. One knows now that that did not matter, but at the time we thought that he " took no notice of them," and we little knew that he was carefully summing them up. Thirty years later he said to me, " If a man shows no sign of becoming a clinician by the end of his first three months he never will become one." You started to manœuvre for position at the end of surgical ward clerk. If at the meeting with the medical registrar where you drew lots for physicians you obtained an early number, you would choose any other than the Perry firm so as to be eligible for it in the second three months. At the end of assistant surgeon's dresser you applied for Skin clerk. If you got this there was a good chance that at the second meeting with the medical registrars you would get on with Perry; otherwise you would have to resign the Skin job since all the other three physicians went round on Tuesday, which was Skin " Outers."

Having got the job you arrived in the Colonnade at three minutes to two on Mondays, Thursdays and Fridays, at which moment the door of the Treasurer's House opened and Sir Cooper Perry —as he had just become—came out in his black tail coat and his huge top hat, with his left hand in his trouser pocket. He walked with a peculiar heave as his right foot came forward, which gave a swing to his whole body, and thus he passed rapidly through the Colonnade and Park. He then went up the stairs two at a time to the second floor and entered Stephen Ward (now Bright and Wilks), where he put his top hat on the end of the first bed and seemingly with his last bit of breath asked a question.

There is the famous story of the ward clerk who was late. He apologised and explained that he had been at a committee meeting of the Chess Club at which they were choosing a team for the Inter-Hospitals Challenge Shield, and the discussion had become so heated that time had passed unnoticed. Dr. Perry, as he then was, accepted the excuse. Some three weeks later this same ward clerk was again a quarter of an hour late. " Dear me, Mr. Jellett," said Dr. Perry, " what a busy man you are! Another Chess Club meeting? " " No, sir," was the reply; " the fact is that you came upstairs so quickly that I could not keep up with you."

Having gasped out his question, he put himself in a characteristic attitude. He took down the rope from above the bed and, arranging it over the rail, tucked it into the bend of his right elbow so that his arm and forearm rested upon the transverse handle. Then, standing upon his left leg, he put his right foot under the mattress and leaned with it on the side of the bedstead. This position resulted in his always being on the left side of the patient at the head of the bed, and from there he faced obliquely the firm standing around.

His teaching was purely clinical; he had one end only in view, what was the best for the patient, and on this he concentrated all his deep and extensive knowledge. My memories of his teaching in the wards are general and blurred by the mists of time, but my memories of Skin Outers are vivid and particular. I have no hesitation in putting them down as the finest clinic at that time, a time when teaching was at a high standard throughout Guy's. I know that there are some who do not agree with this, but for me and, I believe, for many others the way in which he there taught how much could be done to relieve a patient, how much could be done for the patient, and how much could be done with the patient was unsurpassed. Jacobsen's rounds, alas! were just ending. Symonds was just developing those wonderful clinical rounds on Monday afternoons which have remained as a tradition through three generations of surgeons unto this day. Mr. Steward was conducting Throat Out-Patients on Friday afternoons with an efficiency and despatch that have been my dream and my envy for twenty-five years. Yet not even Peter Horrocks collecting every available student outside Queen to talk about Cæsarean section and emptying Victoria to show to the largest number how it should be done could compare with Skin Outers.

They were held on Tuesday afternoons, and Sir Cooper sat in the room of the Assistant Physicians, one of the few that remains unchanged; there were therefore no medical out-patients on that day. Two chairs on his left were reserved for the Assistant House Physicians—subsequently the out-patient officers doing medical out-patients. He leaned his right elbow on a table at which sat the Skin Clerk, and on which stood a bowl of

slimy lysol—still retained in some departments. The Sister in person "took" the out-patients standing by the door, which is but three paces from the stool upon which the patients sat. By the time they had taken these paces and sat down, he often knew their occupation. By the time they had said six syllables he usually knew the county in which they were born. He combined the powers of Mr. G. B. Shaw's character of Pygmalion Higgins with those of Joseph Bell, the surgeon to the Royal Infirmary of Edinburgh from whom Conan Doyle got the idea of "Sherlock Holmes." His ear for the different intonations and accents of various people was uncanny. It was not merely a question of telling North from South, or Wales from Tyneside. He seemed to know every county and could tell Derbyshire from Stafford and Wilts from Hants. This power put him in harmony with the patient before he began to discuss his job with him. And every man's job he seemed to be able to discuss with knowledge. It did not matter whether he was a baker or a coal-trimmer. The patient found, perhaps for the first time, a doctor who could talk with him about his work as though he had done it and understood its difficulties and annoyances. I remember an elderly Jew staring with open eyes and mouth at a doctor's uncanny knowledge of roofing felts in which he travelled. When the treatment had been ordered he tried to do business with him and to sell him some. At which Sir Cooper burst into laughter. This was a chuckle low down in his pharynx. It convulsed the whole of his huge frame, his shoulders made spasmodic movements up and down, and his stupendous tummy shook like a quivering jelly. It was accompanied by a sly glance upwards and laterally with his blue eyes that any vamp might have envied.

This power of talking to a man on his own level enabled him to get a history by indirect questioning without suggestion; and often the patient, without realising it, had told things apposite to his skin lesion that he would never had divulged intentionally. I saw the same thing nearly twenty years later when, as Sub-Dean, I sat, with Mr. Bromley, the Dean, under him as a sub-committee to interview candidates for an assistant clerk in the Medical School—Mr. Winston's predecessor. He just asked a few questions and they divulged themselves to us. The candidates seemed to do our work for us. As a matter of form we discussed two of them, but there was never any doubt; one man, in his hands, had shown himself to be the proper candidate.

With the women he was the same, perhaps even better, he had such a way with them. He seemed to know unerringly when they should be humoured and when they should be teased. He laughed at some; with some he was firm, and with others his voice was as tender as any I have ever heard. Of course, he made mistakes at times, and sometimes when we laughed at him the patient thought we were laughing at her, but when either of these happened, his change of approach was wonderful and his recovery usually complete. Occasionally as the patient walked out he would say, "Well, we shan't see her again!" That finished the matter; there was other work to be done. Of course, much of what we learnt is now so "obvious," as when the lady would not pull her other stocking off at the request of a student. He stopped us at once, knowing she had not washed the other foot and would willingly expose the normal leg to us for comparison next week when she had done so.

The Skin Clerk's job was not an easy one, but it was good training. When he was going really fast with old cases the out-patient letters fell so quickly upon the table that we could not even write "Rep. omn. (28)" without getting two or three behind, and one was glad to catch up at the arrival of one of his old friends with some rarity, such as Kaposi's disease, that he would discuss with a budding dermatologist like Charles Iredell, who was then his house physician. At the beginning of the three months he would go through one of the commoner diseases in each session—scabies one week, psoriasis the next, impetigo in a third, and having gone carefully through the applications suitable for each, he would never mention them again. The Skin Clerk had to order them while Sir Cooper was noticing some special point and giving instructions to the patient, but he was never allowed to use the same application twice in one day for the same disease. At the tenth case of psoriasis it became rather hard to remember something different. If, thinking "old Perry's" attention was taken elsewhere, one put down "Ung. Picis Liq." for the second time, he always caught you out, slapping his hand upon the table and saying, "No! you have used that once; you can't do so again to-day." Nor would he tell you an alternative.

It is not for me to speak of him as a dermatologist, but this I can say: he knew how to use his tools. He could do more with a little Ung. Glycerini Plumbi Subacetatis—a favourite preparation of his—than most of us can do with a cartload of bottles and pots. He would change the method of application, or give the patient some little tip as how to use it, or encourage him to peg away with it. Alternately he would change his applications from one to another until he found the

one the patient could use or that suited him. His power to manœuvre was masterly.

Woe betide the student who used a false quantity or committed some other solecism in the name of an application. I once spoke to him of "Unguentum Galli cum Opio"; a pained expression came over his face and a tremor spread down his body as though he had swallowed sour wine, but all he said was, "Dear me, Mr. Layton! you with your classical education, too!" He never aired his classical knowledge. An old practitioner of my acquaintance, who had known him as a student at the London, told me that you could quote any line of "Paradise Lost" and he could go on with the poem from that point, and that he could tell you the variants between the Prayer Book and the Bible versions of any verse in the Psalms; but when I asked him about this in after years his modesty forbade his answering, and he turned the conversation with an awkwardness unusual to him. His similes were homely, as when, speaking of a certain doctor, he said he did not mind his calling a spade a spade, what he objected to was his called it a bl——y shovel; or when he said, of some group of people, that they were like the beer, and, when I stared, added that there were different kinds of beer, but they were all good.

He never gave advice, but to go and ask him for it was well worth while; he made you find out for yourself what was the best course to take. But he bore no resentment if you did not take it. You always knew where you were with him. Shortly after I became surgical registrar he gathered me up into his room as he was passing through the outer office and, having congratulated me on getting the post, added: "Well, you have two years in which to learn your job and get through your higher exams. I always say that Guy's is the best stepping-off stone that there is, and"—with a shrug of his shoulders—"as you know, if there is a vacancy on the Staff when you happen to be about, the man on the spot has always got the best chance for it." No one could imagine with him, as has happened with others, that being put into a junior position of the junior staff gave you a free ticket along a golden road to the full Staff and to fame. When outside the Superintendent's door I have never quite got rid of the feeling that I had when called to the head master's study. Professor Johnston looking as though he had not a second to spare, Mr. Eason handing one an out-patients' letter while looking at you over his spectacles with a long face which cleared at once when he learnt that it was you, the member of the Staff, that had sent away the case of diphtheria that the Medical Officer of Health had written about, both gave me that same sensation; and so it was with Sir Cooper. I stood in awe of him, right to the end, even when I lunched with him last summer. I think it was right that we should. He was built on a larger scale in every way. There was an occasion when he had to draw my attention to the fact that as surgical registrar I had let the damper off my voice. Some lady, of the tray-patient variety, had objected to the noisy fellow going round the ward with his crowd of students, and had written to some influential person about it. There was not any doubt that he expected it should not occur again, but this was combined with a humorous reference to persons in the position of "maiden aunts from whom the Hospital might have expectations" and the need of dealing carefully with them. He added that he had heard I was getting on well and that people were beginning to appreciate my teaching. In his office he would haul himself out of his chair and lean against the mantel-shelf with his shoulders while he kept the short tails of his black coat out of the fire by spreading his hands out behind him and warming them at the flames. One got to know that when he did this there would be five minutes from which one would gather something worth taking away. When the time was up he would heave his right side forward, rolling himself against the edge of the mantel-piece on his left arm and would dismiss you with an upward look and a nod. He was in his chair working again before you were through the door. Although his movements were heavy, and even ungainly, they were never clumsy, not even slow. They were interpretations of his bulk, not of a deficiency in reflex action.

I have used the word "wise" in reference to him because I think it fits him best. By this I do not refer to his knowledge, which was vast. I do not use the term "common sense" for I find that those who do are deficient of what I should call it if I did. It was not "worldly wisdom," for he had none. It was his power to use his knowledge, abstruse or homely, for the matter in hand, great or small, that I would describe by this term. In that power he was, in my experience, unrivalled. "Great men are not always wise." Sir Cooper was both wise and great.

T. B. L.

I DOUBT whether the younger Guy's dental men realise the extent of their indebtedness to the late Sir E. Cooper Perry. It was largely due to his great powers of organisation and his farsightedness that the Dental School was founded. Mr. Newland-Pedley, the dental

surgeon to the Hospital, advocated such a course in 1888, and on December 12th of that year he and Sir Cooper, then Dean, laid their scheme before the Court of Committees, and on December 19th it was approved by the Governors. I heard this fact from an old Guy's man, and having just completed my term of three years as pupil in the laboratory of a dental surgeon, I went to Guy's for an interview with Sir Cooper, in January, 1889. He advised me to join the Hospital forthwith, as, although the Dental School would not come into being until the May, he pointed out that I could attend lectures on Anatomy and Physiology and start work in the Dissecting Room.

I took his advice, and became the first dental student on February 7th, close on fifty years ago. Sir Cooper never lost interest in the School, and I can testify personally to the value of his good advice and sound judgment all through the years that followed when from such a small beginning the School steadily grew to its present position. During the greater part of this time I was brought into close association with him, and learnt to appreciate his truly great qualities.

I pay grateful tribute to his memory.

M. F. H.

BY the death of Sir Cooper Perry a great pioneer in the Hospital world has passed away.

Edwin Cooper Perry had great intellectual gifts. He won scholarships to Eton and King's College, Cambridge, and his career at both places bears testimony to his early brilliance. In Classics, he carried off most of the prizes of the day, and all through his life he read Latin and Greek as a recreation.

He was born in Wednesbury and brought up in the country vicarage of Seighford, in Staffordshire, in an atmosphere of higher mathematics —his father, the vicar's, recreation—and music, an amateur Bach choir, he sang with his friends in each other's houses on winter evenings. He had an especial interest in music, and after taking his M.A. he studied at Leipsig, but his work did not satisfy him and, instead, he studied medicine, working both at Addenbrooke's Hospital, Cambridge, and at the London Hospital. At Addenbrooke he met his future wife, Caroline Maud McManus, of Killeaden House, Co. Mayo, who later became Sister Blizzard of the London Hospital.

In 1887 he was appointed Assistant Physician to Guy's Hospital, and in 1888 Dean of the Medical School, and in 1890 Warden of the Students' College, which through his efforts had recently been built, and ultimately, in 1892, Superintendent of the Hospital. A year or two after his migration to Guy's Hospital as an assistant physician, he married, and his one child, Mary Caroline, now Mrs. Frank Crook, was born in the old Superintendent's House next to the Hospital building.

But it is as an understanding physician, a far-seeing administrator, and wise and ever-helpful friend that we older members of the Guy's nursing staff will remember him best. The younger generation among you do not know what you have lost, for to you the benefits that he brought to Guy's by his farseeing wisdom seemed part of the natural development of Hospital life; but you of the older generation know. He was far in advance of his time. He was one of the first owners of a steam car and of the pianola. Through him, and his gift for interesting other people in clear-cut schemes, we had a Nurses' Home with single bedrooms with hot and cold water in each, and a swimming bath years before any other hospital in England—I believe I might say in Europe; a Nurses' League founded in 1899, a Nurses' Recreation Cottage, a mixed Musical Society, a Cycling Club, a Nurses' Team Race held as part of the students' swimming gala—undreamed-of advances in those far-off days of early 1900. We were the envy—or the disapproval—of many other nursing schools who had not yet a pioneer mind like Sir Cooper's to strengthen and enlighten and support their Matrons.

I speak of him only as he touched our nursing staff; you will have read his obituary in *The Times* and other papers and learn what a great man he was in other ways and how much of his life he has devoted to a diversity of public affairs. He could be abrupt, but he was utterly just. He was a strict believer in doing your duty no matter how inconvenient it might be. He was always accessible to us, ready to listen and give his whole consideration to a professional difficulty or a private trouble. He loved the Borough and the Borough loved him, and every Tuesday at his crowded Skin Out-Patients' he showed himself not only a brilliant teacher but a genial host to his Borough friends. He retired to a house he had built in Worthing which had favourite Latin inscriptions on its four outer walls. Up to the day before the stroke which brought on his last short illness he was full of vigour and work. We Guy's nurses who knew him loved him.

"Into Thy hands, O Lord, we commend his spirit."

E. E. P. MacM.

Post-Operative Obstruction

A Clinical Lecture delivered at Guy's Hospital by E. G. Slesinger, Esq., O.B.E., M.S.

GENTLEMEN,—The smooth convalescence which normally attends an abdominal operation performed under modern conditions, while in itself a notable tribute to the efficacy of present-day surgery, carries with it the danger that complications, if and when they occur, may be overlooked or inadequately dealt with. In the great majority of cases what is done at the primary operation is final, and upon the skill, care and gentleness of the surgeon at that time depends the successful outcome of the case. Nevertheless complications do occur, sometimes directly dependent on the nature of the original disease, sometimes on the condition of the patient's tissues, and occasionally on some technical defect in the operation itself. The early recognition and proper treatment of such complications may call for the highest surgical judgment and skill, and, just as the golfer may retrieve a desperate position by his skill with the niblick, so can a desperate case sometimes be saved by prompt diagnosis and bold, but judicious, treatment. The complications which may follow an abdominal operation are many and varied, and are far commoner as a sequel to an operation undertaken for the relief of a septic condition than when the abdomen is clean to start with. An exhaustive list of possibilities would be tedious and unprofitable, but when considering complications certain groups of conditions are worth remembering as representing tendencies which may occur. These groups are : (1) Post-operative obstruction, including paralytic ileus ; (2) Peritonitis, including local peritoneal abscesses such as pelvic abscess and subphrenic abscess ; (3) Acute dilatation of the stomach and post-operative hæmatemesis ; (4) Phlebitis, thrombosis and embolism ; (5) Lung complications, including massive collapse ; (6) Pylephlebitis and portal pyæmia ; (7) Acute parotitis ; (8) Post-operative acidosis. I cannot attempt to deal with such a list to-day, and shall confine my remarks to post-operative obstruction and ileus. I want first, however, to say a word about deep-stitch abscess. I do not mean the infection of stitches which may occur when such septic conditions as an appendix abscess are drained through the wound. That, of course, is not a complication, but a direct sequel of the condition dealt with.

Occasionally, however, in any abdominal wound, after the clips or skin-edge sutures have been removed on the sixth day, the temperature will begin to rise, the patient to complain of aching or colicky pain, and the bowel action to be sluggish. Vomiting also may sometimes occur. Often the wound on casual inspection appears normal, but on careful examination a bulging is found and the line of the scar is seen to be wider over this bulging area. Sinus forceps inserted at this spot will release a quantity of purulent fluid smelling of B.C.C., and in a day or two the resultant cavity will be healed. Such an abscess results from infection of a hæmatoma in the abdominal wall, often from the insertion of deep tension sutures, and is best avoided by careful hæmostasis during closure of the abdominal wound. Unusual as such a stitch abscess is, however, it must be borne in mind, because the absence of local pain and evidence of inflammation, together with signs of intra-abdominal disturbance, is apt otherwise to lead to mistaken diagnosis and treatment.

Post-operative obstruction, with which I include so-called paralytic ileus, is probably the most important of all post-operative abdominal complications on account of its gravity, the difficulties it presents in diagnosis and treatment, and, above all, because it is in this condition that judgment and boldness will not infrequently serve to snatch a patient literally from the brink of the grave. Post-operative obstruction may be divided into two groups, the mechanical and the infective, under which latter head I would group paralytic ileus. While, however, infective obstruction may occur alone, the mechanical type of post-operative obstruction almost invariably has an infective element associated with it. In discussing mechanical obstruction as a post-operative complication, I am not, of course, referring to the obstruction which may develop resulting from turning or twisting at or round a point of adhesion months or years after the operation. I am referring to obstruction developing in the immediate post-operative period. This seldom occurs in a clean abdomen. After such operations as that for septic appendicitis, or the relief of strangulation or obstruction, however, it is an uncommon but important sequel. In such a case after a few days of apparently normal progress the first symptom may be a small vomit, associated with complaint of pain, a feeling of distention, or only of discomfort in the abdomen. The bowel, which may have been acting normally, ceases to do so, and the pulse and temperature may show rises. On examining the abdomen there is moderate distention, and possibly an area of tenderness. On auscultation, the metallic tinkle of sounds generally heard in obstruction of the small intestine may be present,

and if so they are almost diagnostic. Sometimes, however, no sounds at all are heard, since the intestinal musculature already disturbed by the previous laparotomy, quickly becomes atonic and paralytic under the stress of a further obstruction. An enema may result in the passage of a liquid stool, as in these cases the obstruction is seldom complete at first, and is apt to engender a false sense of security. If the symptoms are not relieved, and a further enema is given, no result follows. In such a case intestinal stimulants of the pituitary or prostigmine type will usually have been administered. They are, however, harmful under such conditions, serving often to make a partial obstruction complete. While no one can over-estimate the gravity of undertaking a second laparotomy so soon after the first, this consideration must not deter the surgeon once he feels reasonably confident that a mechanical obstruction is present. Delay in such conditions is fatal, and the earlier intervention is undertaken the more hopeful the result. When such an abdomen is opened, the degree of distention of the small bowel is surprising. It is always far greater than would be found in a primary obstruction of similar duration.

The objects of the operation are to relieve the obstruction, and to empty and drain the distended bowel. A modified evisceration, taking care to keep the exposed bowel warm and moist, is usually unavoidable, and, on following the dilated small intestine downwards, it is usually possible to discover and free a kinked and adherent loop, possibly from the abdominal wall, or from the wall of an appendix abscess, or from the cæcum. Having done this, it is essential to continue to follow the bowel down until a collapsed part is reached, as not infrequently more than one adherent coil is present, and all must be freed. When this has been done, I attach the greatest importance to emptying as far as possible the distended coils of intestine. This is done by opening a coil within a purse-string suture and inserting a Moynihan glass tube, which is a glass tube about six to eight inches long, with a flange at one end to which is attached a length of rubber drainage tube leading to a receptacle beside the table. Gently and gradually the dilated coils of bowel are threaded on to this tube and allowed to empty, and often several pints of intestinal contents can be emptied in this way. When no further drainage can be obtained, the bowel is gradually pushed off the tube and returned to the abdomen, and the site of insertion of the glass tube is utilised for the establishment of an ileostomy. This is done by sewing in a No. 12 or 14 rubber catheter, and in-folding the bowel wall around it after the fashion of a gastrostomy opening. It is quite unnecessary to sew the bowel wall to the peritoneum, as gentle traction on the ileostomy tube will keep the drained loop in position and adhesions will fix it there in a few hours.

An intravenous saline drip infusion, if not already in position, must be established at the same time, and fluid should enter the vein at the rate of about six pints in 24 hours. This serves not only to replace fluid but also restores the chloride balance. At first the ileostomy tube may drain very little, but gradually it will begin to flow, and on the second day the patient will often have a spontaneous bowel action. If he does not, an ox-gall enema, with 1 to 2 oz. of fresh ox-gall to the pint, will generally produce one. I am convinced that in these patients the ox-gall enema is superior to any other, and, if need be, once the intestinal passage is known to be free, it can be assisted by the injection of 2 c.c. of prostigmine given a quarter of an hour before.

The success or failure of these methods will vary directly with the time during which the secondary obstruction has been in operation, and I cannot therefore stress too forcibly the importance of being on the alert for this insidious and dangerous complication. Any alteration or interruption of the smooth convalescence after an operation for acute appendicitis or some similar condition must be taken seriously, and the facile ostrich-like attitude which refuses to recognise danger signs must be sedulously avoided if these patients are to be saved.

As an illustration of the insidious onset of post-operative obstruction, and the occasional absence of rises of pulse and temperature, let me mention a patient at present in the ward.

A man, aged 23, was admitted with acute appendicitis. He was operated on, found to have a gangrenous appendix, and this was removed and the wound drained. For the first four days progress was good, and on the third day a simple enema produced a good result. On the fifth post-operative day he began to complain of colicky pain on the right side and across the mid-line of the abdomen, and this vague colicky pain continued on and off until the second operation. Shortly after the pain began he vomited a few ounces. A stomach tube was passed and showed very little residue. He was then seen to be slightly distended, and an enema produced a fair result, with some relief of symptoms. For the next five days he seemed better, but had occasional pain and vomited small quantities at times. A stomach tube was passed several times

and showed but little gastric residue, and enemata produced satisfactory results. He then became worse, in that vomiting was more frequent and larger amounts were vomited. Enemata produced poor results and pain continued. On the twelfth day an intravenous drip was instituted and a Ryle's tube was left in the stomach, which was kept empty, and the next day he was reoperated on.

At operation the small intestine was greatly distended. Two adherent loops were found and freed. The dilated coils were emptied of several pints of contents and an ileostomy was performed. The patient is making a good recovery.

At no time was there an elevation of pulse or temperature in this case, and there is no doubt that secondary intervention should have been undertaken several days earlier than it was. In this case delay did not interfere with a satisfactory recovery, but such delay is dangerous, and should not occur if one does not let the pulse and temperature chart influence the interpretation of symptoms.

In dealing with what I have termed infective post-operative obstruction you will have noticed that I included under this heading paralytic ileus. By that I do not mean that all cases of paralytic ileus are necessarily infective in origin, although I believe that by far the greater proportion are, but rather that in both conditions we are dealing with an obstruction of the small bowel dependent upon paralysis of its musculature and not upon mechanical interference with its lumen. I consider it very doubtful whether true ileus ever exists without a septic origin, and in this connection I would stress the mistaken application of the term " paralytic ileus " to what is better termed " meteorism," in which the bowel becomes enormously distended with gas following such conditions as chest injuries, normal labour, or the application of plaster jackets or spicas. In these patients peristalsis is interfered with by the over-distention, and in that sense the result is the same, but they do not have the outpouring of fluid, and the distressing vomiting which are the features of the septic cases.

In infective post-operative obstruction the infective element varies greatly. There may be gross infection in the form of a peritonitis which determines its onset, or there may be merely infection of the pelvic peritoneum with slight rise of temperature. In either case the question whether infective obstruction results or not depends more on the condition of the bowel than on the degree of infection. If the bowel has been severely traumatised as by the use of heavy retractors or prolonged exposure during the original operation, or if the abdomen has been suddenly decompressed as by a Cæsarean section or the removal of a large tumour, a minimal infection, such as that produced by transudation of organisms from the bowel lumen, and which ordinarily is readily dealt with by the peritoneum, is sufficient to interfere with peristalsis. The early administration of purges or enemata, so frequently and unnecessarily resorted to, will further tire the exhausted musculature, and, as distention increases, further transudation of organisms results and a vicious circle is established. The physiologists have much to teach us yet about the factors which govern the excretion and transudation of fluid into the bowel, but there can be little doubt that the maintenance of tone in the intestinal musculature has much to do with it, and nothing is more striking than the rapidity with which pints of fluid are poured into the lumen of the small intestine once its normal peristaltic action is interfered with.

The history of a typical case is usually as follows. Following an operation on the abdomen, the patient may appear reasonably well for the first 24 to 48 hours. At the end of that time there is noted distention of the abdomen. If an enema is given for its relief it will produce neither a fæcal or a flatus result. The pulse rate will begin to rise and the patient usually begins to vomit. Small quantities are usually vomited at a time, and generally in an effortless manner and without much retching. The patient is anxious and restless, the tongue begins to become dry, and the abdominal distention increases. Auscultation of the abdomen, a most valuable method of examination which is used far too seldom, reveals a complete, or almost complete, absence of sounds. A repetition of enemata continues to give negative results. Vomiting becomes increased in amount and frequency, and the vomit rapidly becomes fæcal in character. Distention gradually becomes extreme, and the pulse rapid and thready as death approaches.

One particular type of infective obstruction has been described by Sampson Handley under the term " ileus duplex." The gravitation of pus to the pelvis resulting from the Fowler position causes those portions of the bowel which are normally pelvic in position to be bathed in it. These portions are the terminal portion of the ileum up to a few inches from the ileo-cæcal valve and part of the pelvic colon. In such a case the pelvic segment of ileum becomes paralysed by the infection surrounding it and the paralysis is progressive up the small intestine. At the same time a similar condition affects the pelvic colon with resultant spread to the whole of the big bowel. Sampson Handley advocates in the treat-

ment of this condition an anastomosis between the upper jejunum and the cæcum and the establishment of a cæcostomy as a safety valve. This procedure seems to me to violate that cardinal principle of emergency surgery in the abdomen, namely, to do the very minimum necessary to relieve the immediate necessities of the case, and I have never practised it. I am, however, convinced that ileus duplex as an entity exists, and will discuss directly the treatment I adopt for it.

The whole question of the treatment of infective obstruction or ileus is exceedingly difficult, and the assessment of results of different forms of treatment even more so. Such questions as to whether a particular patient dies or recovers because of or in spite of certain measures adopted as treatment cannot be answered with certainty, partly because such cases are relatively few in number and partly because of the lack of standards of comparison, by which the severity of reported cases can be judged. I can therefore only give you such lines of treatment as have been most satisfactory in my own experience, while mentioning other suggested methods which I have not felt called on to try.

I am convinced that the first essential to treatment is to institute an intravenous drip. This serves both to replace the fluid loss and to rectify the chloride loss which has been shown experimentally to be a factor of such grave importance. The second essential is to empty the stomach and to keep it empty. This is best done by passing a Ryle's tube, either through the mouth or nose, emptying the stomach, and keeping it empty either by attaching the tube to a Sprengel's pump or by sucking out contents every quarter of an hour with a syringe. A determined effort must then be made to get the bowel to act. It must, however, in my opinion be decided at the same time that if such an effort fails, surgical intervention will be undertaken, and that further time will not be lost in repeated attempts to secure an action which, if they fail, as they almost certainly will, may well have allowed the chances of successful intervention to pass.

My own custom, when the drip is running and the stomach is empty, is to cover the abdomen with enormous hot fomentations, and to replace the normal saline in the drip by hypertonic saline, twice normal; 2 c.c. of prostigmine, which I consider by far the most useful drug at present available for this purpose, is given, followed in two hours by a further 2 c.c. If the patient is very anxious or restless, I see no objection to one-sixth of morphia at the same time. I am completely unconvinced by the assertions that morphia interferes with peristalsis.

The second dose of prostigmine is followed in fifteen minutes by an ox-gall enema.

If as the result of such treatment any result at all is obtained, either of fæces or flatus, a further dose of prostigmine followed by a similar enema can be given three hours later. If, however, no result is obtained surgery must be attempted.

My own practice in such cases is to do a jejunostomy, an operation first advocated in this condition by Victor Bonney. Bonney considers that the jejunostomy should be not more than 4 feet from the duodeno-jejunal junction, but I think this is unnecessarily high. The jejunostomy should be well inverted round a No. 16 catheter, and I find it an advantage to place the omentum between the jejunal loop and the abdominal wall, bringing the catheter out through it. This manœuvre materially increases the chances of sponteneous healing of the jejunostomy wound. If the colon is found to be dilated and paralytic, I have been in the habit of passing a long large stomach tube up the rectum from the anus, and guiding it into position up to the splenic flexure by a hand in the abdomen. It can be fixed in position by a stitch at the anus, and serves as a valuable vent to the colon, without the disturbances occasioned by a cæcostomy.

Such a jejunostomy usually drains little for 24 hours, after which, if recovery is taking place, fluid comes fairly freely from it. Once it is draining enemata can be resorted to again, but should not be given often enough to tire the bowel. The jejunostomy tube should be removed in three to four days, and the skin around carefully protected from excoriation. I find careful smearing with aluminium paste the best, together with the employment of a box such as the Hamilton Irving box used with suprapubic bladder drainage.

Generally such a jejunostomy closes itself, but if it does not, it must be closed at the earliest opportunity. It can often be temporarily closed by inserting into the opening a flange of rubber and keeping traction on the rubber outwards against the intestinal wall.

Of other surgical measures that have been advocated most are in the nature of some type of short circuit of the lower paralytic ileum. I believe the principle of a short circuiting operation in the presence of obstruction of this type to be wrong, and have never practised it. Wilkie reported a remarkable case in which he performed both a jejunostomy and an ileostomy into the very last piece of the ileum. The two openings were connected by a rubber tube and the contents which came out of the jejunum were led back into the ileum. This patient recovered and did

credit both to the ingenuity of the surgeon and the hardiness of the Scot.

Finally I should like to impress once more on you that the condition we have been discussing is rare, but that nevertheless you must always be watchful for its onset, for your patient's life will depend on three things, namely, prompt recognition, the avoidance of ineffectual over-treatment, and the adoption of bold and decisive intervention at the right moment.

Peace

Presidential Address to the Debating Society, delivered on Tuesday, 8th November, 1938

By T. B. Layton, Esq., D.S.O., M.S.

IN August, 1911, there was an international crisis. It went by the name of Agadir, and is forgotten to-day. For three years statesmen strove so that another should not arise. They failed, and August, 1914, was the result. To-day we have been through another crisis. Statesmen will again try to prevent a recurrence, but statesmanship is not enough. It is the duty of all of us—man, woman, and developing child—to do what we can to help. I want to-day to consider how.

On the physical side there is not much. Have you ever, in a car with worn-out tyres, been going downhill, on a slippery surface, faster than you ought? If you have just missed a lorry at a bend you would not jam on both brakes and throw out your clutch. It would, however, not be advisable to accelerate as a means of getting round the next corner. While, then, we may feel that this is not the time at which to demand any immediate reduction of armaments, we are entitled to oppose any extension. We may look upon any form of conscription introduced in peace time under the guise of national service as a greater disgrace to this country than defeat by an outside enemy.

Our daily task in the interest of peace must, therefore, be mental. Everyone to-day is talking peace; but many, perhaps still the majority, retain a military mentality as a means of gaining it. The others, probably more than is usually thought, are developing the pacific mind. The former are still bound by the old principle, "If you wish for peace, prepare for war." The latter have developed a view, "If you prepare for war you are bound to get it." The first of these is an hypothesis deduced from a state of the world that no longer exists. The second is an inductive reasoning from the history of Europe in the last two hundred years. From it we can deduce, "If you make preparations for war you intend to use them," and this brings us to the purpose of armaments. There is no such thing as armaments for defence. Every exponent of war from Hannibal to Foch has taught that offence is the only means of defence. Peace-time armament is a preparation for offensive war. In voting for and in paying for armaments you are advocating offensive action. You may think it necessary. You may think it right, but do not be led astray by arguments that you are doing it only for defence. We have probably to bear the burden of armaments for some time, but I would urge you never to allow anyone to speak of defensive armaments in your presence without contradiction. There is no such thing, and the advocates of physical power should be compelled to face that fact.

I turn to another way in which the mind of the nation needs education. There are two forms of war. One is the war of man against man. This is man-made, and all are agreed that it should cease. The other is the war against the disharmonies of Nature. It is the fight against prejudice, against ignorance, and against disease. It is eternal, and man's further evolution depends on how he wages it. We cannot be sure that the plans that we are making for this war will finally succeed. Man may disappear. But if they are right, his progress depends upon our carrying them out. They are the plans of education and of sanitation. It is a striking thing that when attempts are made to extend health and education services they are held up "because we cannot afford them," but when plans are developed for the war of man against man, they are at once put into action and we are called upon to make great sacrifices to pay for them. If these armaments are really needed I am prepared to meet their cost, but I maintain that the same attitude should be assumed in the war against Nature, and that when it is known that increased activity is essential for education and for health the cost must be faced just as much as it is claimed it must be for planes and battleships. The fact that both are necessary is no excuse for putting off one form of expenditure rather than the other.

Let me then sum up the contrast between the military and the pacific mind. Both are aiming at peace, but the military mind believes that this can

be gained by preparation for war. It talks about armament for defence, and thinks that this is so important that it must be paid for before anything else. The pacific states that if you prepare for war you are bound to get it, denies that there is any such thing as armament for defence, and claims that, however great a sacrifice must be made to pay for armaments, an equal and simultaneous effort must be made for the development of health and education.

While the military mentality still holds sway, we are in monthly and almost daily danger of another crisis such as that which we have just been through. What can we, as individuals, do to help statesmen to avoid a calamity during this period? I think we want to try to get those who were our enemies and have so recently nearly been so again to have some faith and confidence in us.

To do this we must try to understand how they view the events of twenty years ago. All of these were not as greatly to our credit as we then thought they were. We continued the blockade for six months after the Armistice. I wonder how many of you know this and realise what it meant. For six months we starved a great but a defeated nation. During this time the Treaty of Versailles was being framed. It was a dictated treaty. The words of their enemies were accepted without the German people having any opportunity of putting an alternative view, or even of suggesting that there was one. Even if every article of that treaty had been just, the way in which it was drafted and was signed would have been an injustice to a great nation.

These are things of the past. To recognise them as mistakes does not infer a criticism in those who were our leaders at that time and were blindly striving to do the right in the after-fog of war, but it does teach us not to criticise their leader to-day. You cannot gain the confidence of a nation by criticising its chosen head. However numerous you may believe the silent opposition to be, it yet remains that Herr Hitler is to-day the accepted leader of the German nation. You need not praise him, but I suggest that we cease to abuse him. We cannot know the truth about him. Contemporaries never do about those who suddenly grasp the helm and steer a state in times of stress. It was two hundred years before we began to understand Cromwell. Napoleon is only now falling into place, while the shape of Lenin is just beginning to emerge from the mist of time.

That the opposition in Germany is silent is due to the fact that in political development they are about in the position that we were in the time of the later Stuarts. So great has been their advance in many branches of social service, such as National Health Insurance or secondary education, that we imagine they must have reached a similar stage in their political development. We forget that it is within the memory of men and women now living that a number of petty states were fused into the German Empire. It is only in the past few years that that fusion has entered into the lives of the people.

In trying to gain the confidence of Germany let us always acknowledge our debt to her in the realm of music. I know of no other example in the history of the world where the art of a nation has had so great an influence on the people of all other nations. The debt we owe to her for this is incalculable.

If we try to secure the confidence of the German people by getting to understand them, we need in no way relax our detestation of the way in which they are treating the Jewish members of their community. It is not for us to interfere in their internal affairs. Nothing is more likely to fuse their nation against us. It is therefore not for us to go into their country and to lecture them on their behaviour, but, as I once realised when a Dutchman refused to talk about the Boers, silence can be as potent as any conversation. When the treatment of the Jews ceases to be an internal problem we can act, and I, for one, feel we are not doing as much as we might and should. I am bitterly disappointed and somewhat ashamed that the conference between those who should be the leaders of our profession and the officials of the Home Office led to so niggardly a result. I do not believe there is evidence to support the premises upon which it was based, and even were they true to act entirely for our own protection, with no risk to ourselves, is not worthy of a great profession that should be beginning to take a place of leadership in the mind of the nation.

I would therefore urge you young persons to go and travel in Germany, but to do so in twos and threes, not in large parties; to avoid the hotels where they cater for the English with beefsteaks and tea, and to go with rucksack and with walking-stick into the villages and smaller towns and to learn the meaning of a *Holsteiner Schnitzel* and a *Bayrische Plat.* There talk with everyone who knows enough English to understand your German, but when the subject of the Jews turns up, be silent until it has passed. Remember that there are other Britishers with views wholly in sympathy with the methods at present in existence over there who would like to see them introduced into our country. They are spending their summer holidays in Germany and fraternising with them on that basis. It is

for those of us who disapprove of those methods to neutralise the effects of such travellers by our actions over here and our silence over there.

Peace, like all human problems, has a physical and a mental side. We are so constantly concerned with the first that we tend to forget the mental aspect of affairs. Fortunately, mental processes go on subconsciously and perhaps are the better for it, but there are occasions when it is well for them to come up to the surface and for us to think earnestly upon them. The present is such a time for the subject of disarmament; we can, for the moment, do nothing physically. We should, therefore, think the more, for upon what we think now will depend what we shall do in the future when action again becomes possible.

American Journey

A Diary by W. H. Ogilvie, Esq., M.D., M.Ch.

(continued)

Wednesday, November 3rd

Watched Gallie fixing sacro-iliac joint. Patient a large over-fat man, who had been working under a lorry when it slipped off the jack and dislocated his pelvis. The right innominate was dislocated at the symphysis and sacro-iliac joint, without fracture and without damage to the bladder or urethra. He had been reduced to excellent position by traction on a wire through the femur, plus traction on a sling round the pelvis to push sides together (excellent dodge).

The man was on his face, incision round posterior third of iliac crest. Towels clipped on with large Michel's, ligaturing was done with Lewis's ligature carrier, a machine with distinct possibilities especially for no-touch technique. A hollow handle, containing a catgut reel rather smaller than ours, a curved hollow spout to take the catgut, and a thumb push to put the brake on. There are alternative spouts to screw in, with left and right curves. (Fig. 78).

He cleared the gluteus maximus off the bone, then made a second incision at right angles to the first, about two-thirds of the way down it, and deepened this to bone, splitting gluteus maximus in the line of its fibres. Cut window in bone with narrow-blade osteotome about $1\frac{1}{4}$ by 2 inches, carefully checking site with dried pelvis. At bottom he had to cut away a lot of tough fibrous tissue before articular surface of sacrum was exposed (result of old injury). There was a lot of wobble of ilium on sacrum. He then cut off cartilage from sacrum, using a nice chisel curved on the shaft. The square of bone removed was trimmed on a side table of all cartilage and connective tissue and hammered well in. All loose bits removed were packed round it, and the whole kept down by two beef-bone pegs driven into the sides of the hole. Usual suture.

Lewis was at work on a gastrectomy for lesser curve ulcer. He had closed the duodenum, cutting between upper and middle of three clamps, oversewing with middle clamp removed and then invaginating. What they call duodenal clamps

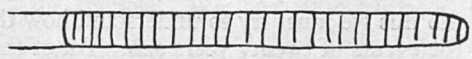

Fig. 79.

are just long clamps corrugated like Spencer Wells; they do not look very safe. He had detached the ulcer from pancreas, and had oversewn it, and was very worried about bits of leak, stopping two or three times to put a fresh stitch in, or sew a bit of fat over. The patient had a gastric tube in, which the anæsthetist aspirated from time to time. He holds up stomach as I do for lesser curve, but makes very lengthy dissection, bares left gastric vessels before tying, takes twice as long, ties twice as many. Uses artificial œdema to clear lesser curve at upper end. All done very nicely, but don't like it as well as my way. He places two duodenal clamps from greater curve, where his stoma will be, and then a Schoemaker clamp. Closes lesser curse in three layers, last interrupted silk. Does anterior Polya, proximal to lesser curve in three layers, the first interrupted silk—like Graham. No clamps.

First-rate workman, but I could not see the need for such elaborate lesser curve work, and found stoma is a bit short—I should have thought liable to kink.

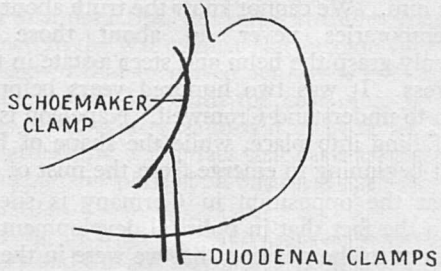

Fig. 80.

At 12 o'clock, Gye, of the Imperial Cancer Research Fund, gave a lecture on Cancer Research to sixth-year students. It was a great lecture, but I can only give a few points from it.

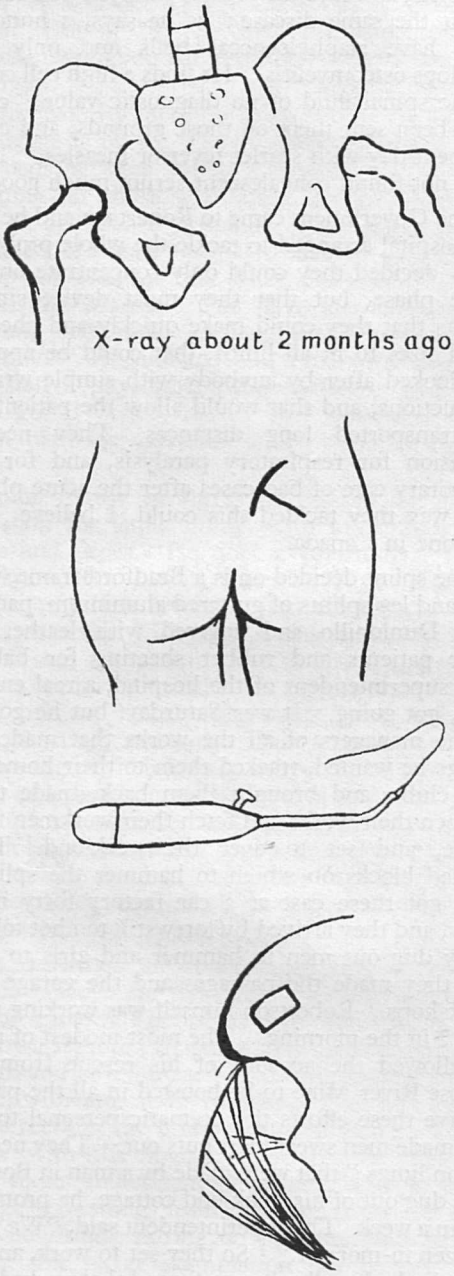

Fig. 78.

Cancer was thought to be a disease of man and of civilisation. It is rather a disease of age. Normal mice, kept and allowed to die of old age, have cancer in 6 per cent. Cancer is not a disease of the body, but of particular cells. Cancer cells can be transplanted, but if all the cells are killed, transplantation is impossible. We know a cancer cell, but there must have been all sorts of things happening between the normal cell and the cell first definitely recognisable as cancerous. The study of these *remote causes* is one line of approach, that of the characterisation of the cancer cell, the *proximate causes* another. Before 1914 the work was chiefly on the proximate causes; since then it is chiefly on remote causes. Percival Pott showed association of soot and cancer in 1775. Yamigiwa and Itchikawa in 1915 first demonstrated experimental tar cancer; lots of people had tried, but it required Oriental patience to go on painting till cancer finally appeared. Since then research has shot ahead, finding substances more and more carcinogenetic, culminating in those like dibenz-anthracene. The other factor is the virus one, dated from the discovery by Peyton Rous of a chicken sarcoma that can be reproduced by injection of a cell-free filtrate. There are now a large number of different sarcomas and one rabbit papilloma that can be reproduced by virus. Other significant experiments: (1) Repeated injection of dibenz-anthracene into muscles never give growth; if, later, calcium chloride is given by mouth, sarcoma appears at site of injection. (2) When tar-painted, cancer will not appear for months or years; if virus is injected it appears almost at once. These all suggest two factors: (*a*) not specific agent lowering resistance of cells and (*b*) specific virus.

Heredity is full of puzzles. By selective breeding, strains of mice have been produced in which 90 per cent. of the females get cancer of the breast. Males do not. If ovaries are removed from females they do not get cancer. If ovaries are grafted in males, or if they are given œstrin, they do get cancer of the breast. *But* if litters of this strain are suckled by normal mice, the females only develop 15 per cent. of cancer, and if impregnated ova are introduced into the uterus of non-cancerous females and allowed to develop there the incidence is 0 per cent. Thus cell-transmission seems to have nothing to do with it.

Thursday, November 4th

Toronto General at 8 a.m. (and one cannot get to bed early here). Graham's registrar doing gastrectomy. High spinal, gas and oxygen. Right paramedian rectus retracting. Largish lesser curve ulcer. Divides great omentum about level of gastro-epiploic arch, but sometimes outside and sometimes inside it, between forceps, taking rather a large bite of tissue; goes on till duodenum is cleared, and leaves lying till stump has been

covered. Two duodenal clamps. Burns between then. Running over and over catgut over forceps (like piles), removes damp, tightens suture and ties ends together, leaving rather a clumsy lump which he buries with a purse string, and ties fat over it. Then ties off hæmostats. Gets left gastric artery with two Moynihans above and one below; transfixes before tying and then puts another tie above last Moynihan. Finishes like Lewis, with Schoemaker clamps, but Polya anastomosis, only leaves very tiny stoma.

Went on to ward round with Gallie and Harris. They were discussing disposal of an adult with poliomyelitis, who had been in about a month. Gallie's views are unusual from the Robert Jones point of view. He seems to think three weeks or till the acute phase is over and tenderness has disappeared from the limbs is as much as a hospital need be responsible for; doubts the value of rest and relaxation in aiding recovery, and has nothing against massage and even faradism. They are all agreed, however, and have accepted it officially, that poliomyelitis is a surgical problem and the diagnosis is made, so they avoid the tragedies we have where they fall into the hands of neurologists.

At 10 a.m. I went across to the Children's Hospital with Robertson—one of the most stimulating two hours I have ever spent; I hope I can get some of the spirit of it down. The theatre is small but super-modern. It is air-conditioned and has a ring of eight mercury vapour tubes round the main operating light. This ultra-violet idea is that of Hart, of Connecticut, who wrote it up some nine months ago (? *Annals* or *Archives of Surgery*). Organisms in the air are said to disappear very rapidly. Here they test the air, drawing it through sterile filters.

	Colonies
Air in theatre grows	say 10 per litre.
Ditto after air conditioning	1 „
Ditto with ultra-violet light	1 „
Ditto with ultra-violet light and air conditioning	1 per 10 litres.

In another theatre the genito-urinary man was doing a cystoscopy. He is finding a lot of hydronephrosis due to aberrant vessels. Diagnosis is suggested when lower limit of pelvis in pyelogram is a straight line. He ties the vessel, and says that the death and subsequent fibrosis of part of the kidney does not matter.

Robertson is all lit up about poliomyelitis. Apparently in June the epidemiologists were quite certain that an epidemic would hit Canada in the autumn. They warned the authorities and started writing articles on diagnosis and treatment. Robertson came straight back from Europe into the beginning of it. He is not impressed with much of the work on pathology or diagnosis, and does not like talk about abortive cases and non-paralytic cases. He uses only the word infantile paralysis, and says till you get paralysis you cannot call it the same disease; as he says, a hundred boys have staphylococcal boils and only one develops osteomyelitis. He finds a high cell count in the spinal fluid of no diagnostic value; cases have been sent them on those grounds, and came out next day with scarlet fever or measles. They have not found convalescent serum much good.

The Government came to Robertson and he and his hospital arranged to tackle the whole problem. They decided they could only concentrate on the acute phase, but that they must devise simple splints that they could make quickly and cheaply in all sizes to fit all limbs, that could be applied and looked after by anybody with simple written instructions, and that would allow the patients to be transported long distances. They needed provision for respiratory paralysis, and for the temporary care of bad cases after the acute phase. The way they tackled this could, I believe, only be done in Canada.

The splint decided on is a Bradford frame, with arm and leg splints of guttered aluminium, padded with Dunlopillo and covered with leather for older patients and rubber sheeting for babies. The superintendent of the hospital, a real enthusiast, got going. It was Saturday, but he got on to the managers of all the works that made the things he wanted, tracked them to their homes or golf clubs, and brought them back, made them re-open their works and fetch their workmen from home, and set to over the week-end. They needed blocks on which to hammer the splints; they got these cast at a car factory forty miles away, and they arrived by lorry still too hot to use. They dug out men to hammer and girls to sew, and they made the passages and the garage into workshops. Robertson himself was working until 1 or 2 in the morning. The most modest of men, he allowed the account of his rescue from the Moose River Mine to be boosted in all the papers to give these efforts the dramatic personal touch, and made men sweat their guts out. They needed " iron lungs " that were made by a man in Boston, and, dug out of his week-end cottage, he promised one in a week. The superintendent said, "We want a dozen to-morrow." So they set to work, and by next day had one built out of wood that worked, and by the end of the week had every available manufacturer on bits and were turning out two or three a day not merely of metal, but with several improvements of their own. They even experimented with new ideas, and one respirator is

made from the chest pieces of a suit of mediæval armour. In one room were eight of these machines in use, the children were happy, but in great fear of being taken out. They start with half a minute or so natural breathing, and increase it as the child can manage. These are, of course, the worst cases. Out of 25, ten died, but many recover normal respiration quite quickly—one I saw in a fortnight.

The majority just now are sent away when the first stage is over. They organised a hospital of 150 beds between Friday afternoon and Monday morning for those who could not go home. It was an abandoned hospital. They got a superintendent of a State hospital to do all the furnishing. Robertson took his best sister and said: "Here, you're the Matron. You have got to engage a nursing staff and arrange their quarters by Monday." He similarly sent a masseuse to equip and staff a physiotherapy department, and they both got it done. In his own hospital a large warm bath for exercises under water is a good stunt.

Going round the wards he showed me a new operation for spina bifida, with incontinence of urine and fæces. He does a colostomy. I did not know, but Lewis, the man I saw doing a gastrectomy, has revolutionised colostomy. The principle is that with some simple apparatus (that I shall see) the patient goes to the lavatory and washes out his proximal colon till it is clean. This takes half an hour. Afterwards he is safe till next morning, and only needs a square of lint. Such a regime is infinitely better than a dribbling anus, and the children improve in health at once. At a second stage he closes the anus. At a third he implants the ureters into a now clean rectum. This forms a large receptacle which can be emptied when required by passing a catheter down the distal colostomy opening.

He described an abnormality new to me—a double colon. He has seen a double appendix several times. The colon was divided in this case by a septum extending from cæcum to termination, and covered each side with mucous membrane, with muscle in between. One half ended as the rectum, the other communicated by a tiny orifice with the vagina. The patient came in with some abdominal symptoms, and a huge sausage extending from the pelvis to the left hypochondrium, pitting on pressure, and clearly fæces. On rectal examination the rectum was empty, and the lump could be felt in front of it. He did a laparotomy, established the condition shown in the sketch, and, after closing dilated the anus and made an opening between the vaginal and rectal colon. After repeated wash-outs, the accumulated fæces were cleared. A barium enema now flowed up one colon, round the cæcum, and down the other.

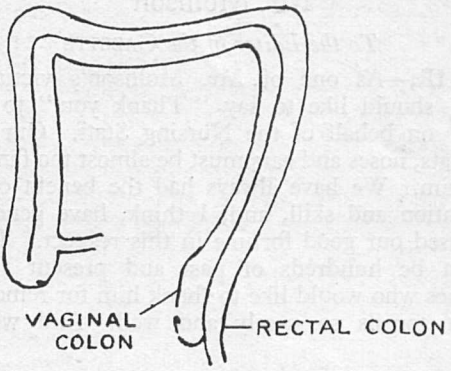

Fig. 81.

Robertson is very keen on sympathectomy for poliomyelitis, doing it almost as a routine where there is blueness or much shortening. He uses the Royle approach. Someone has checked a series, and says that 42 per cent. show lengthening. They also fix a great many feet and seem to do it very early—three or four. They find, as one would expect, that many relapse, and then they do it again. It did not strike me that they had strong views on the point, as when I criticised early operations they did not try to defend them. They very often do ankle arthrodesis as well afterwards, if the foot is not stable enough, arranging the degree of equinus to avoid the need for raising anything except the heel.

Le Mesurier has a simple dodge that will suit me, has a pair of spectacles stalked forwards on the nose bridge about an inch, so that they do not steam during operations.

Back to the General at 12.30 to see Murray nailing a femur. Patient on Hawley table; wooden perineal post—for X-rays; canvas spats for traction to foot pieces. Exposes femur and drills one inch below transverse ridge. Has formerly, with clinometre, put a mark on opposite side of pelvis in line with his drill hole and the normal angle of the femoral neck. Aiming at this mark, he puts in a Watson Jones pin. For X-ray, merely puts large sterile sheet over patient and uses the ordinary casette—much simpler than Dickson's dodge. Having proved that his wire was right, he drives in a pin over it. Patient under cyclopropane, very widely used here.

Murray later showed me X-rays of his grafted scaphoid fractures. Snuff-box incision, looks at and freshens fracture line, drives in peg cut from tibia. The X-rays he showed certainly gave bony union.

(*To be continued.*)

Correspondence

Mr. Mollison

To the Editor of the GAZETTE

SIR,—As one of Mr. Mollison's victims I should like to say "Thank you" to him on behalf of the Nursing Staff. Our sore throats, noses and ears must be almost too familiar to him. We have always had the benefit of his attention and skill, and, I think, have generally realised our good fortune in this respect. There must be hundreds of past and present Guy's nurses who would like to thank him for removing their tonsils so neatly and well. And we do thank him for giving us his time and services so ungrudgingly.

The lectures he has given every year to the nursing staff have always been outstanding in interest, and some of his diagrams were inimitable and unforgettable!

We say "good-bye" to Mr. Mollison very sadly; we are losing a friend who will be sincerely missed.

Yours, etc.,
HILDA M. GRATION.

The Nurses' Home,
St. Thomas's Street, S.E.1.

Hospital Information, etc.

Pass List

THIRD (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.

November, 1938.

Pass.

R. D. Blachford
J. C. A. L. Colenbrander
A. M. Edwards
H. Foster
D. F. Freebody
S. I. Green
W. S. Hacon
A. S. Lee
D. R. Levinson
M. Lubran
G. D. N. Milne
K. G. Pascall
A. C. Ricks
A. T. M. Roberts
L. F. W. Salmon
J. H. Smart
L. C. Thomson
R. O. Yerbury

GROUP I.

G. L. Burgess
J. Burton
H. B. O. Cardew
T. T. Davies
J. T. Davis
P. A. Gardiner
H. E. Moody

GROUP II.

D. A. G. Brown
S. B. Smith

SUPPLEMENTARY PASS LIST UNDER REVISED REGULATIONS.

The following Students have passed in Part I.

M. E. Davies
J. M. French
L. Nancekievill
R. G. Robinson
A. J. Walker

CONJOINT BOARD.
FIRST EXAMINATION.

December, 1938.

Anatomy.
M. Wilks.

Physiology.
P. W. Edward.

Pharmacology.

M. J. R. Franks
H. R. Lomax
V. J. Maclean
F. W. B. Rilstone
W. F. J. Weston

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.

December, 1938.

Surgery.
R. G. Ticehurst.

Medicine.
*C. R. Morgan.

Forensic Medicine.
*C. R. Morgan.

Midwifery.

D. S. Foster
*G. E. King-Turner

* Have now completed the examination.

UNIVERSITY OF CAMBRIDGE.
FIRST EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

Michaelmas Term, 1938.

PART I.

Surgery, Midwifery and Gynæcology.

A. C. C. Hughes
K. S. MacLean
J. Watson

UNIVERSITY OF OXFORD.

The following Degrees have been conferred.

BACHELORS OF MEDICINE.

C. D. Cormac
E. M. Poulton

Papers by Guy's Men

McEvedy, Peter. Treatment of hæmorrhoids. *Med. Pr.*, 1938, cxcvii, 542.

Coxon, R. V., and Forbes, J. R. Agranulocytic angina following administration of M. & B. 693 (with chart). *Lancet*, 1938, ii, 1412.

Births

MORTON.—On November 29th, 1938, at Hill-Side, Pembroke Road, Moor Park, to Evelyn (nèe Browne), wife of W. Eaden Morton—a daughter.

PANTIN.—On December 9th, 1938, to Stella (nèe Alcock), wife of Guy Pantin, Holmlea, Woodbourne Road, Douglas, I.O.M.—a daughter.

Death

STEVENSON.—On December 14th, 1938, in Cambridge, Dorothy Thirza (nèe Verran), wife of Claude Maberly Stevenson, M.D., of 90, Chesterton Road, Cambridge, aged 57 years.

EDS. {C.H.E. W.E.Y.